

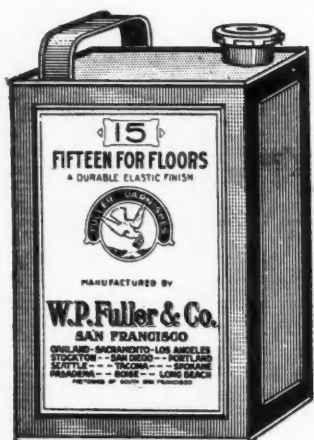
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THE ARCHITECT

• VOLUME XVI • NUMBER 1 •
• JULY • 1918 •

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THE ARCHITECT

Published by
THE ARCHITECT PRESS

Associate Editors for July, 1918
Professor D. L. SNADER - Clarksville, Tenn.
IRVING F. MORROW - San Francisco
RAY BOYNTON - San Francisco

HARRIS ALLEN
EDITOR

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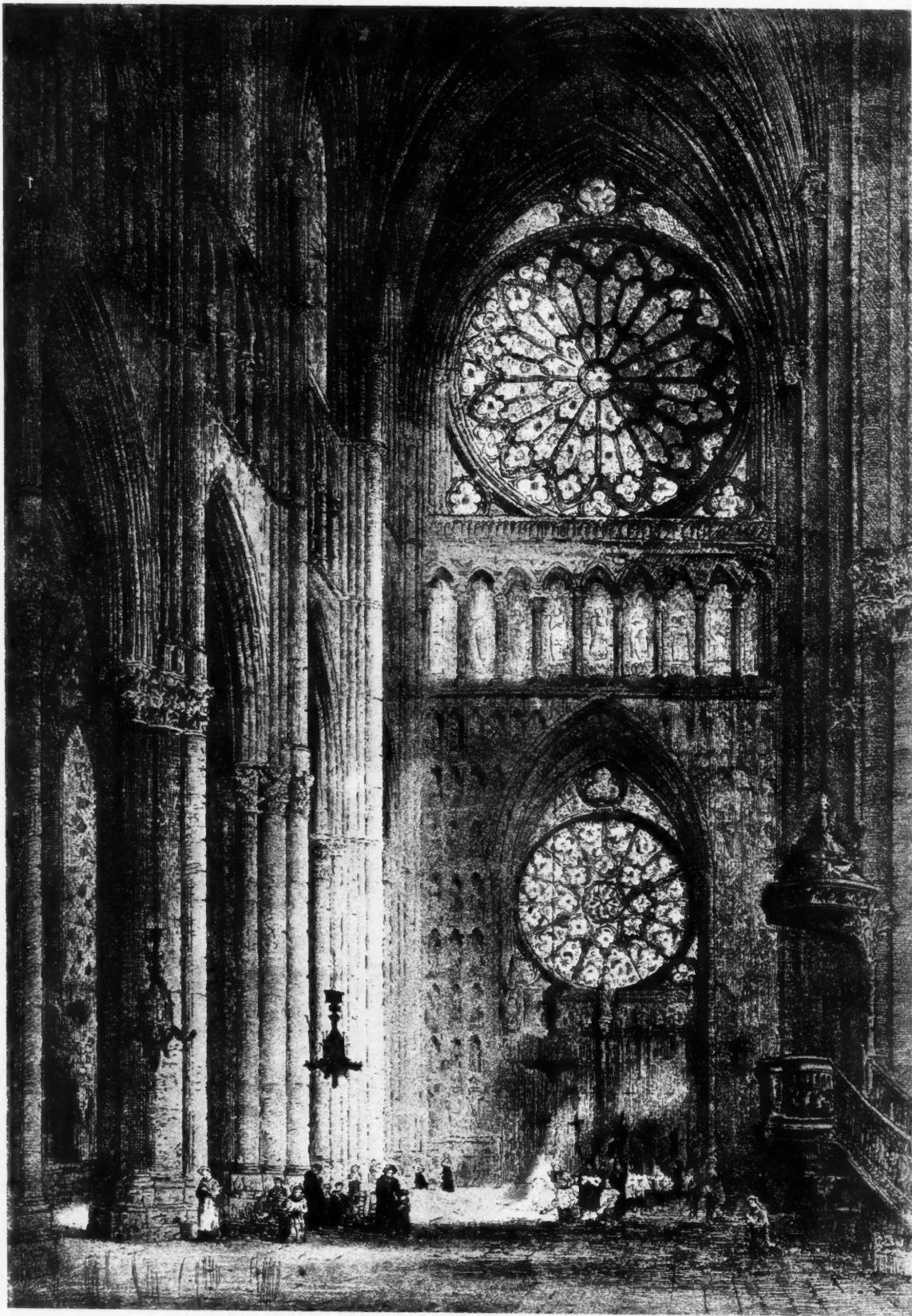
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Published in the interest of the architectural profession, on the first of each month, at 245 Mission Street, San Francisco. Entered as second class matter August 4, 1911. Subscription price in the United States and possessions, \$5.00 a year; foreign and Canadian, \$6.00 a year. Single copies, \$1.00.

Changes in, or copy for new advertisements, must reach the office of publication not later than the fifteenth of the month preceding issue. Advertising rates and any other information will gladly be given on application.

The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated.



RHEIMS CATHEDRAL
NAVE, LOOKING WEST

THE ARCHITECT

VOL. XVI

SAN FRANCISCO, JULY, 1918

NO. 1

The Nature Basis of Architecture

By Professor D. L. SNADER

IN the following discussion the author considers certain general laws, processes, and methods of design as illustrated and exemplified in the works of nature, and aims to show that if the architectural designer is to be successful, these same general laws and principles must be either consciously or unconsciously applied. It may be said at the beginning that it is not his idea or desire to try to state, even if it be possible, any hard and fast mathematical rules, laws, methods or formulae on which the great and wonderful designer, Mother Nature, works in the production of her myriad forms. For nature in her various manifestations is constantly illustrating the beauties of diversity in monotony, of unlikeness in sameness, and of contrasts in things which are yet of the same type or class.

Nature is a vast storehouse of beauty and suggestion which we may contemplate with the highest degree of wonder and admiration, and from her the designer may draw without end. But while we may go to nature's treasure house with its inexhaustible supply of suggestions, it is not enough simply to copy the shape of the acanthus leaf, or the graceful, flowing line of the honeysuckle; we should rather search for the causes of the natural beauty, and seek out the principles and methods by which nature accomplishes her ends. And so if we are able to uncover the method and process by which nature attains beauty we shall see that it is by orderly arrangement. Hence it is that the catenary curve which the spider thread assumes under its load of dew



Figure 1. YORK CATHEDRAL

drops, converts, correlates and brings under law and order the glittering, sparkling gems of water which hang from it. So the lesson from nature is that beauty in nature is obtained through some sort of order.

Similarly examples of architecture, those which are more properly works of design, will show some orderly arrangement. Architecture then becomes constructive, not merely imitative, and in construction and design the methods and processes by which nature accomplishes her purpose should be carefully studied out. For example, so far as we can tell, the human body is the most perfect of nature's works. In the body the skeleton or framework is never directly seen, yet it can hardly be said that it is anywhere concealed; it is given prominence at

the joints and the more pronounced points of support, where if it were not so the action of the frame would be unintelligible. The muscles are placed where they are most useful to this framework and also in such way as to give forms gracefully rounded in outline. The muscles are given further softness and elegance by the deposits of adipose matter, and the whole is covered with a skin which with its beautiful texture conceals the more utilitarian construction of the internal parts. In the trunk of the body the viscera are disposed almost wholly without symmetry or regard to beauty of any sort. The heart is placed on one side without a similar organ on the other, and all the other parts are placed exactly in such positions, and are of such forms, that they may most directly and easily perform the functions for which they

are designed. But this whole unsymmetrical, utilitarian, internal structure is concealed in a perfectly symmetrical sheath of the most exquisitely beautiful outline. In a similar way a building may conceal its skeleton load-supporting framework of steel by a more ornamental covering of bricks, stone, or terra cotta; yet the structural parts will be evident and displayed at the more prominent points of support. And we may safely say that a building will be beautiful when the same amount of concealment and the same amount of display of construction is preserved as in the human body; where different parts have different functions and where ornament in like amount is added, to beautify without interfering with the use or function of the member.

We may also add that it is in nature's highest works that we find this symmetry of proportion most prominent. In the lower types of animals it is not so evident, among trees and vegetables still less so, and in the mineral kingdom among rocks and stones it is not present at all. This principle is universal in nature, and hence we may say that examples of architecture are beautiful in proportion to the extent to which they conform to the highest types of nature in which this symmetrical arrangement is followed.

Now a closer analysis may help toward understanding in some degree these natural principles and processes of which we have been talking; and in my analysis I shall try to discover correlations between things in nature which at first sight are apparently unrelated, and thus, if possible, to lead on to the application of these discovered correlations to design, where they may aid in working harmoniously and rhythmically toward some desired end.

Now we mentioned above that nature does not work according to any hard and fast rules and laws, and this seems true at first sight and even after some examination, for no two trees even of the same kind ever put forth their branches in just the same manner, no two leaves from the same tree, similar and unmistakable though they may be, were ever exactly alike; no two persons look

alike though they have similar members and features.

But we believe there are certain general laws and rules in nature which are discoverable and which may be formulated by our crude understanding after some fashion. The difficulty of application to design lies in the fact

that these rules and truths on the fulfillment of which beauty depends are not always present, at least consciously, in the mind of the designer who creates a work, or of the person who contemplates it.

One of the first of these truths that I desire to state is the law of Unity, which, defined, means singleness, mutual cooperation, harmony. This law, we observe, holds in nature's works, be the object simple, complex, or one possessing considerable variety.

A second truth is that of polarity or duality, the character of being composed of two, and which does not contradict but rather supplements the first. These two terms of polarity have reference to the physical difference of sex, for all things are either masculine or feminine; and they are endlessly repeated throughout nature; being manifested in day and night, man and woman, in the straight lines and curved lines of all trees and flowers, and so on.

The characteristics of

these two terms, as you may suspect, are for the masculine, primal and active manifestations; for the feminine, secondary and passive. These two characteristics, I take it, are fundamental throughout all nature, and the distinction between the two is a distinction far beyond mere words. In painting there are warm colors and cold colors, the red which excites and the blue which quiets. In design there are the straight lines and free flowing lines, light masses and dark masses. In architecture there are the straight, vertical, aspiring lines, full of effort, as in the great Gothic cathedral of the Middle Ages, with its slender supports, balanced thrusts, and its tall upward reaching pinnacles which seem to be ever rising toward the heavens (see Frontispiece and Figs. 1 and 2); also horizontal lines, restful to the eye, as in the Greek temple

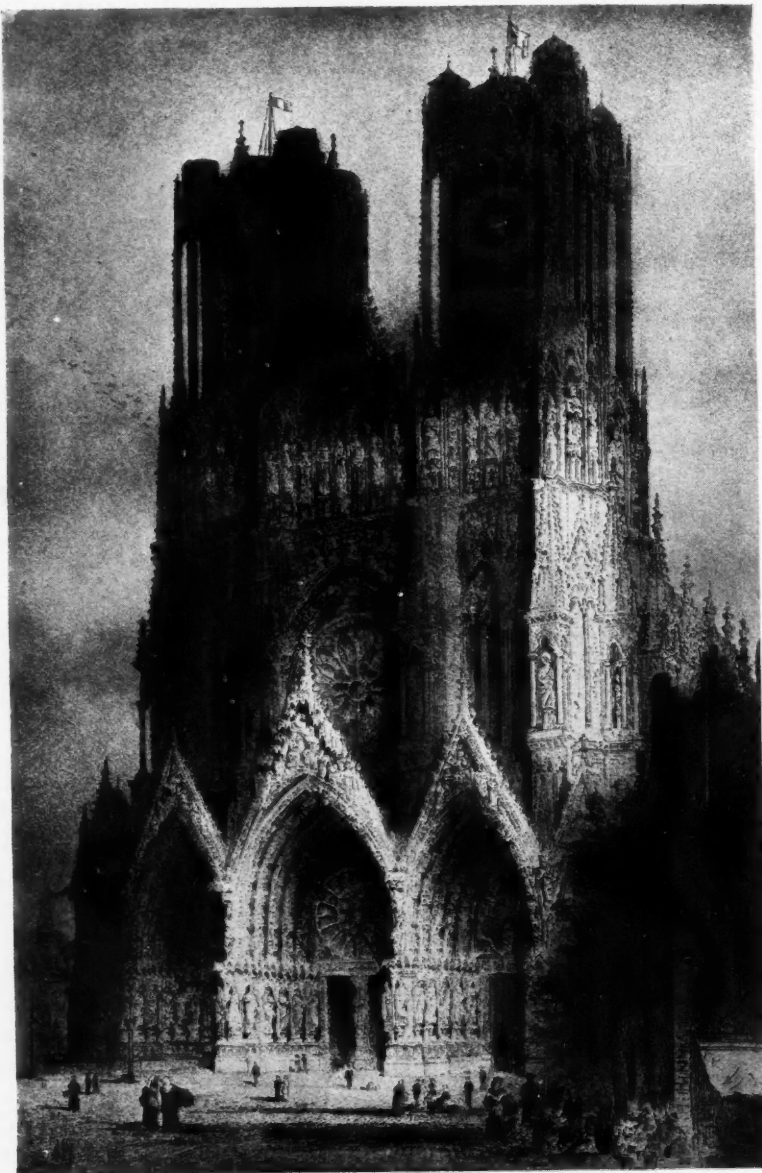


Figure 2. RHEIMS CATHEDRAL. West Front

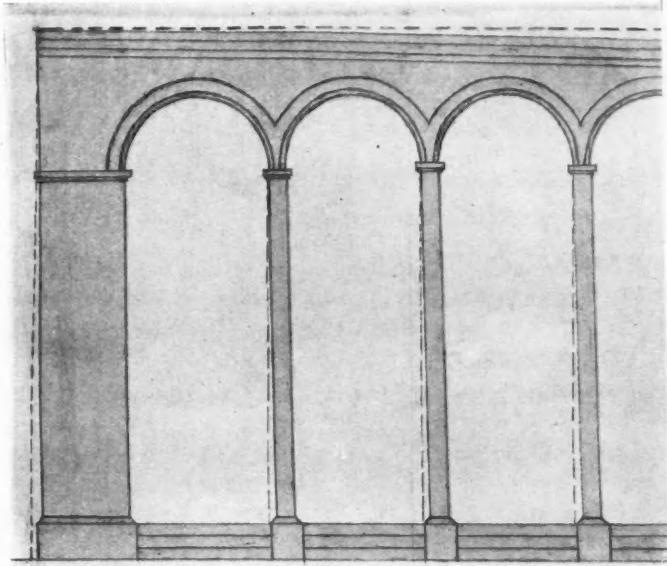


Figure 5. Diagram of Portion of Arcade. Cathedral of Pisa.

which is passive, where all is calm, tranquil and reposeful.

These two masculine and feminine characteristics of things are clearly illustrated in nature, in trees, foliage and flowers. The trunk of the tree with its hard straight line is the masculine; its foliage, soft, curved and flowing, the feminine. And again in each stem and leaf the two are repeated. This may also be shown by two different types of leaves, the one straight, vertical, stiff and regular being the masculine, the other curved, somewhat horizontal, with free, flowing, softer outline being the feminine (Fig. 3); or again in the sort of lily form which consists of a single straight and rigid spadix, the masculine, embraced and surrounded by a soft and most tenderly curved spathe or envelope, the feminine (Fig. 4). These few examples are but typical and an examination of other forms of nature will reveal this same duality, the same two characteristics.

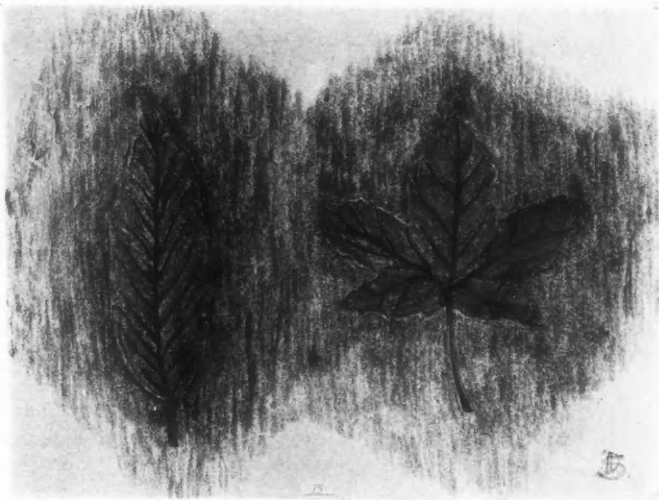


Figure 3. Types of Leaves

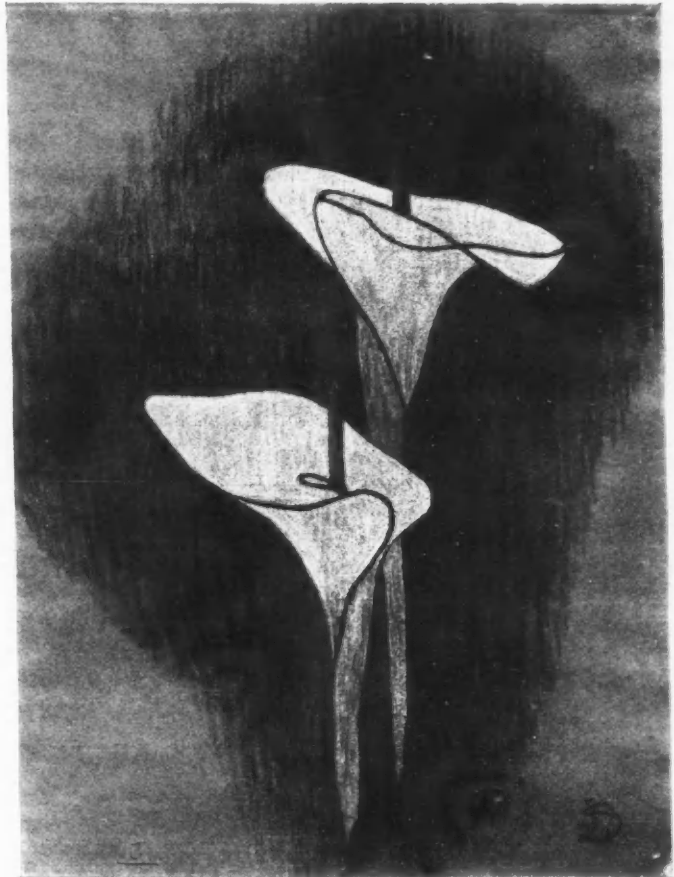


Figure 4. Lily Form

Now to make an application of this truth of nature to architecture. It is true that some forms have been developed as the result of a need, a necessity, the function or need to be met seeking for and finding its most appropriate form. And this is only another way of stating that "form follows function," as in the case of the Gothic buttress. But some architectural forms have been developed not as the result of the law that "form follows function," and these are interesting and beautiful because of the fact that in their design the masculine and feminine characteristics have been carefully worked out. They do not exist to fulfill some requirement of utility, but their reason for being is the more abstract law of beauty, and in expressing this law the construction is often weakened and sometimes falsified. An example of this is the familiar classic console or modillion, or in more common terms simply a bracket. A bracket is supposed to give strength and support to the structure above, its function is to hold something up, and its general shape and outline are well enough adapted to its function as a supporting member, since it is embedded in, and projects from a wall. Yet its surface is ornamented and embellished with a peculiarly beautiful scroll which it seems gives it the appearance of not being built into the wall but of being fastened against it in some manner. And so, while its functional expressiveness is to some extent lost, the exquisite beauty obtained through contrast of the delicately curving double spiral, with the straight lines of the moulding which sub-



WATER.

Mural Painting by Frank Brangwyn for Court of the Ages
Panama-Pacific International Exposition

tends it, probably more than offsets any other defect. And we thus come to think of this member in a different way from that in which we think of the buttress, for the function of the modillion seems now to be embellishment rather than structure.

As another example, one where "form follows function," we may take the column and lintel together. The column, a vertical member, has work to do in the loads which it has to support from above, its function is utility. This member exhibits the masculine characteristic while the horizontal member the lintel, which is passive, not active, exhibits the feminine characteristic.

To go still further, the column, which is divided into three parts, represents in the shaft the masculine and in the base and capital the feminine. Taking the capital by itself it will be found to consist of two main members, a curved member and a straight angular member, as is well illustrated by the Greek Doric and Ionic capitals. The Doric is more masculine in type, but the Ionic is par-

ticularly feminine, for we see how the plain masculine member, the abacus, has become subordinated to the beautiful cushion shaped member with its two delicate spiral volutes. The Ionic is less rational and less expressive in form of the particular work which it has to do, for both have loads from above to carry, but it is the more beautiful of the two, and exhibits more of the feminine character.

Examples could be multiplied, but those given may be sufficient to show the universality of application to architecture of this principle of polarity or duality of all nature.

There is a third principle of natural beauty that I want to mention. Nature in her various manifestations of the masculine and feminine characteristics of things, is constantly illustrating the beauties of diversity in monotony, of unlikeness in sameness, and of repetitions with variations.

It is a matter of general information that no two leaves from the same tree, or even from the same branch, ever exactly correspond. They have unmistakable characteristics and markings which place them in the same class and show them both to be of the same kind, but the serrations of the edges or the veining of the leaf is never exactly the same in any two examples. And so there is never absolute identity in nature, but always some difference, showing itself as variation between individual units belonging to the same class, type, or species. This law of Diversity in monotony is but one of the principles of natural beauty and exemplifies the truth that identity or sameness does not exclude individuality. This truth is not only beautifully portrayed in nature, but also by art, including architecture. Since beauty is obtained by order and symmetry, orderly arrangement of elements in nature, the repeating of a unit, which in architecture often becomes desirable and even necessary, may be attended with monotony, with tiresome uniformity and sameness, if careful precautions are not taken to avoid it. This principle of introducing individuality into

repeated elements which might otherwise become monotonous, we may even say of liberty subservient to law, may be called controlled individuality, for the variations which may be made in order to prevent irksome sameness are controlled by the exigencies of the case in hand.

A good example of this is given in one of the arcades of the first story of the Cathedral of Pisa (Fig. 5). The arcade in question contains a series of fifteen arches in a length of side wall of about 170'-0". One of the first variations to be noted is the fact that the top lines over the arches are not level, but are about 3'-0" lower on one end than on the other. Also about six of these arches near the centre are tangent at their highest point to the line of the entablature above. The balance of the arches are of varying heights. Also five of the columns on the left end and the large masonry buttress are not exactly vertical, but lean slightly toward the left. Also the distance between the columns varies. From investigations it seems that this may have been an effect sought for, an

effect of art, not carelessness, and by such variations and seeming irregularities an effect in design is obtained which is often refreshing; for a rigidly equal and altogether regular division or marking to some extent lacks interest and vitality.

These few examples are given in an attempt to phrase, and state more concretely, general laws and principles of design which are present, sometimes only unconsciously, in the mind of the designer, and with the aim of showing that architecture is largely based on these principles and methods of the great designer, Mother Nature.

At the University of Michigan

THE following notes are communicated by the College of Architecture of the University of Michigan.

In view of the number of young men who are going into military service, the University of Michigan will offer a special course in tracing and elementary draughting for young women. This course will be given in the approaching summer session beginning on July 1st, and will consist of eight weeks intensive work, covering enough ground to enable young women to adapt themselves, on the one hand to the needs in architects' offices, and on the other hand in mechanical draughting.

Further information may be had regarding the first from Professor Emil Lorch, College of Architecture; and regarding the second from Professor H. J. Goulding, College of Engineering, University of Michigan, Ann Arbor.

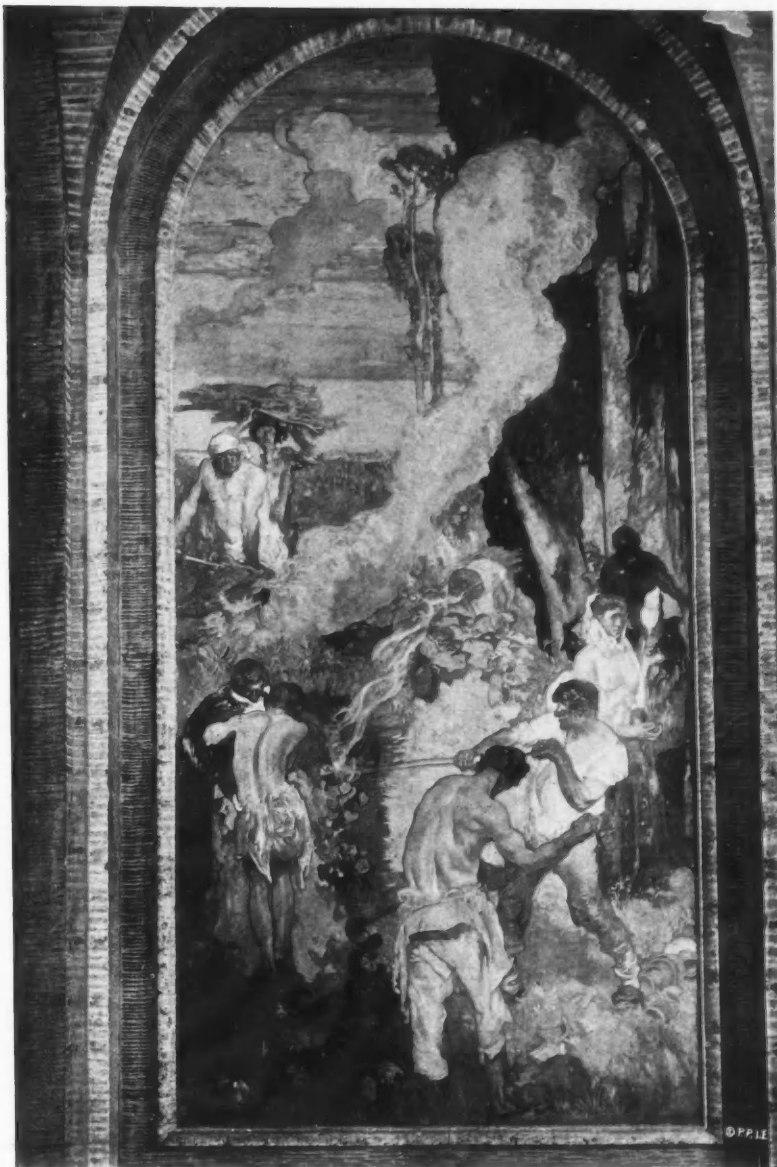
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In view of the conditions created by the war, some changes have been made in the regular architectural programs of the University of Michigan. The first of these is an increased requirement in scientific building construction, increasing work in this field beyond the heretofore normal requirement in architectural schools; the second consists in providing elective hours which will enable architectural students to pursue one of a number of special courses which prepare men for specific technical government service.

A number of the architectural students are now completing the special course in ship construction given by this University at the request of the government. These men will thus be able to use their technical training in a most helpful way. The advanced students are just completing the planning of an industrial town, in which everything from the plant and public buildings to the various housing types is being worked out.

* * *

At the recent Convention of the American Institute of Architects held in Philadelphia, a special exhibit was shown of drawings by Wilson Eyre. Practically the entire collection is now hung in the Alumni Memorial Building, Ann Arbor, and constitutes an unusually inter-



FIRE

Mural Painting by Frank Brangwyn for Court of the Ages
Panama-Pacific International Exposition

esting set of drawings. There are more than one hundred of these, all of which were made by Mr. Eyre himself over a period of thirty years. They show the entire range of this versatile artist; pen and ink, pencil, black and colored crayon, water color, and a combination of these mediums are used, as well as papers of all colors ranging from a white Whatman to the tinted papers which Mr. Eyre knows so well how to use advantageously.

The subjects include cottages, houses of all sizes, gardens, studies in charcoal of full-size details for stone carving, faience and terra cotta. There are elevations and perspectives of exteriors and interiors, drawings from the figure and a number of splendid foreign sketches primarily from Italy and England. There are also some photographs of the executive work. It is altogether one of the most interesting collections ever brought together.

List of Architects and Draughtsmen in Military Service

San Francisco Chapter

Harris C. Allen
E. P. Antonovich
John A. Baur

Franklin T. Georgeson
John Davis Hatch

B. S. Hirschfeld
James T. Narbett

Ernest L. Norberg
Sidney B. Newsom

Walter D. Reed
W. O. Raiguel

San Francisco Architectural Club

Walter Reed
John Branner
Albert Cauldwell
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Edmund J. Burke
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Wm. Smythe
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Lewis Jackson
Gordon Raeside
Albert W. Burgren
Ed. Sharp
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Rodney Jones
Vincent Buckley
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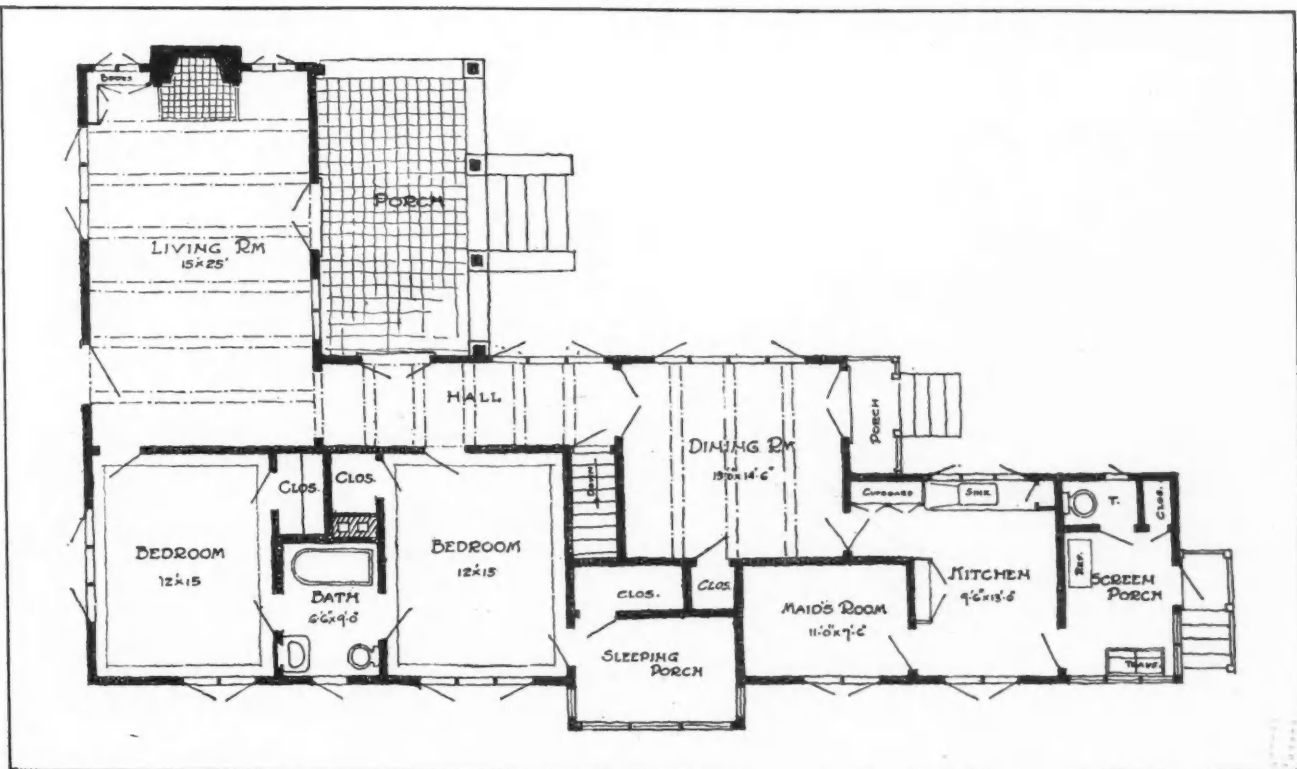


BUNGALOW FOR JULIUS SEYLER, SOUTH PASADENA
ELMER GREY, Architect

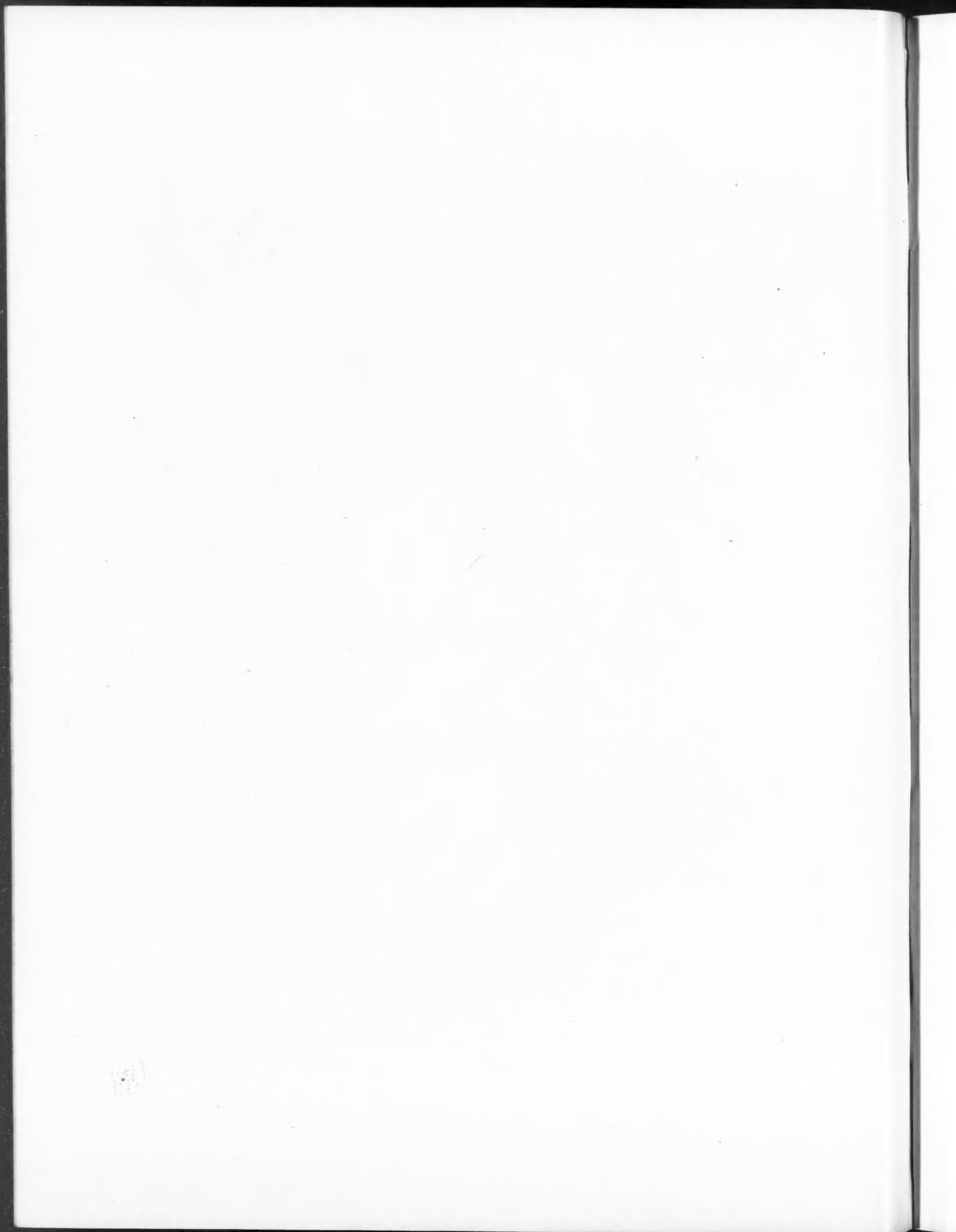
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FRONT VIEW



MAIN FLOOR PLAN
BUNGALOW FOR JULIUS SEYLER, SOUTH PASADENA
ELMER GREY, Architect





HOUSE FOR ELMER GREY, PASADENA
ELMER GREY, Architect

• 119
vol. 3
1900

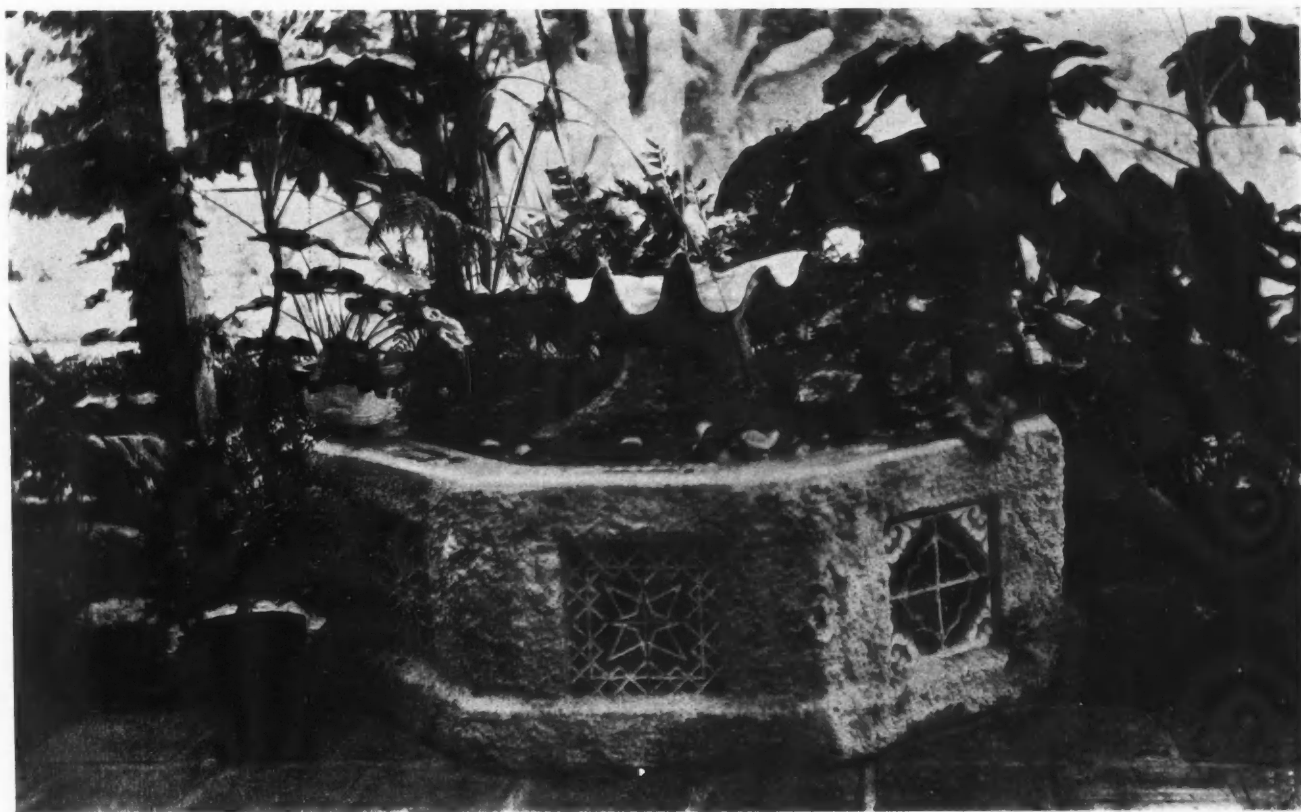


HOUSE FOR ELMER GREY, PASADENA
ELMER GREY, Architect

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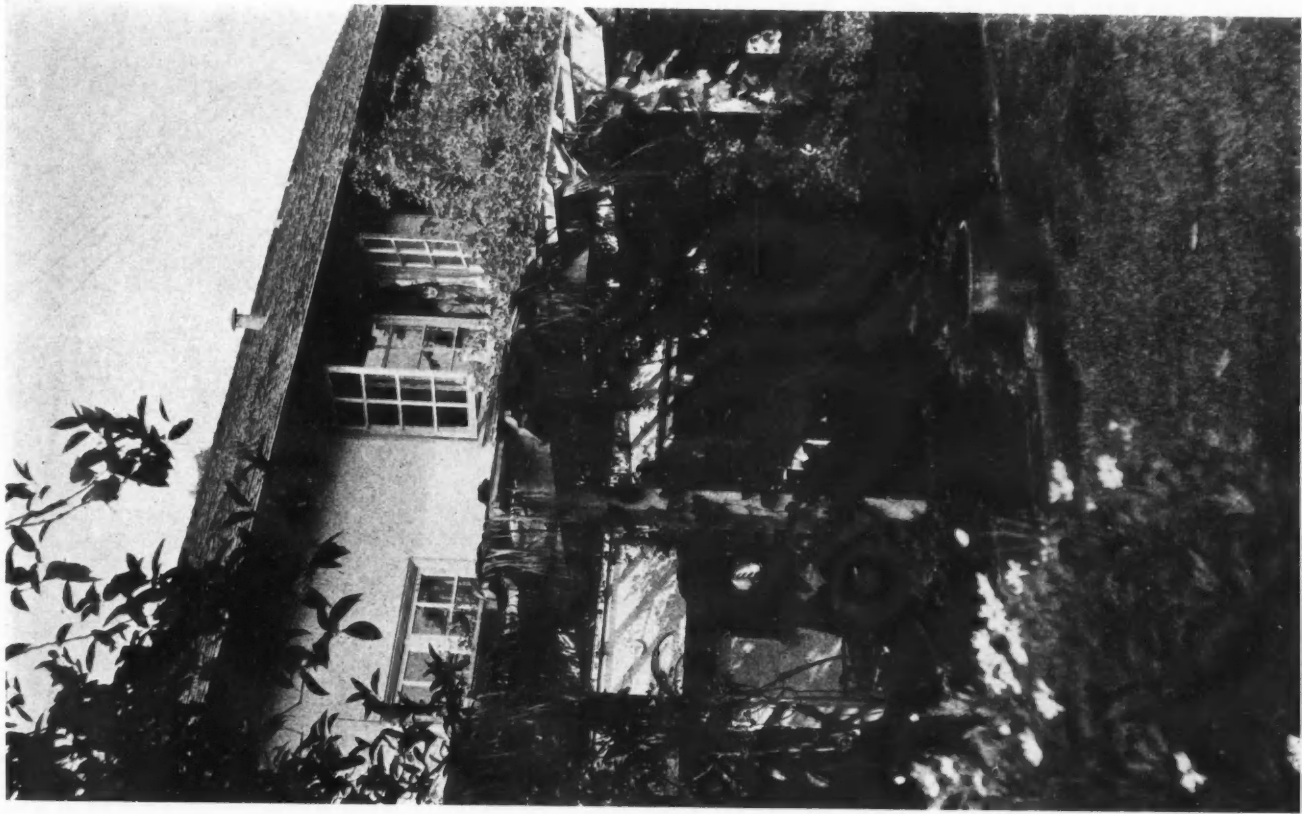


PERGOLA



FOUNTAIN IN PERGOLA
HOUSE FOR ELMER GREY, PASADENA
ELMER GREY, Architect

22



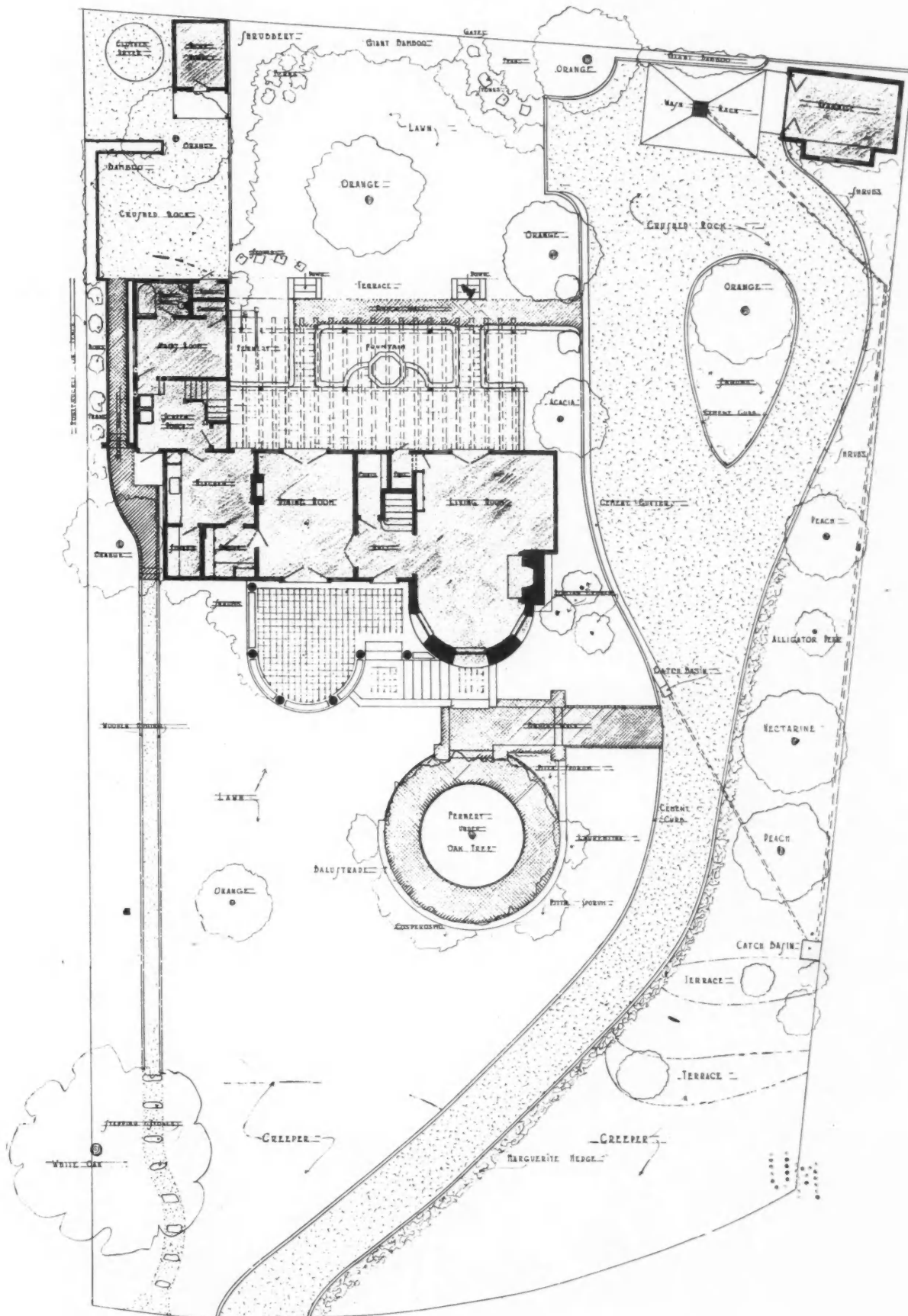
GARDEN SIDE

HOUSE FOR ELMER GREY, PASADENA
ELMER GREY, Architect

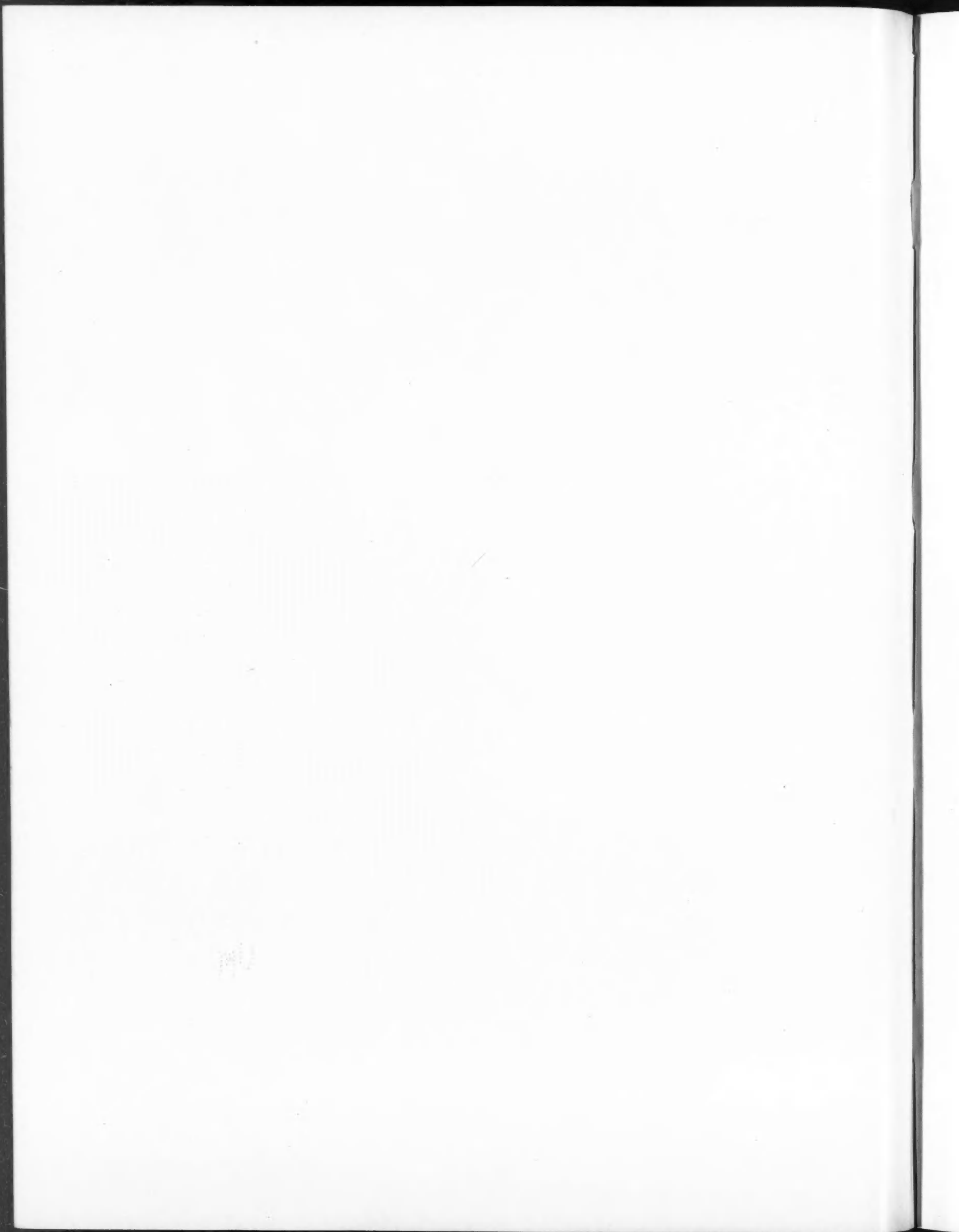


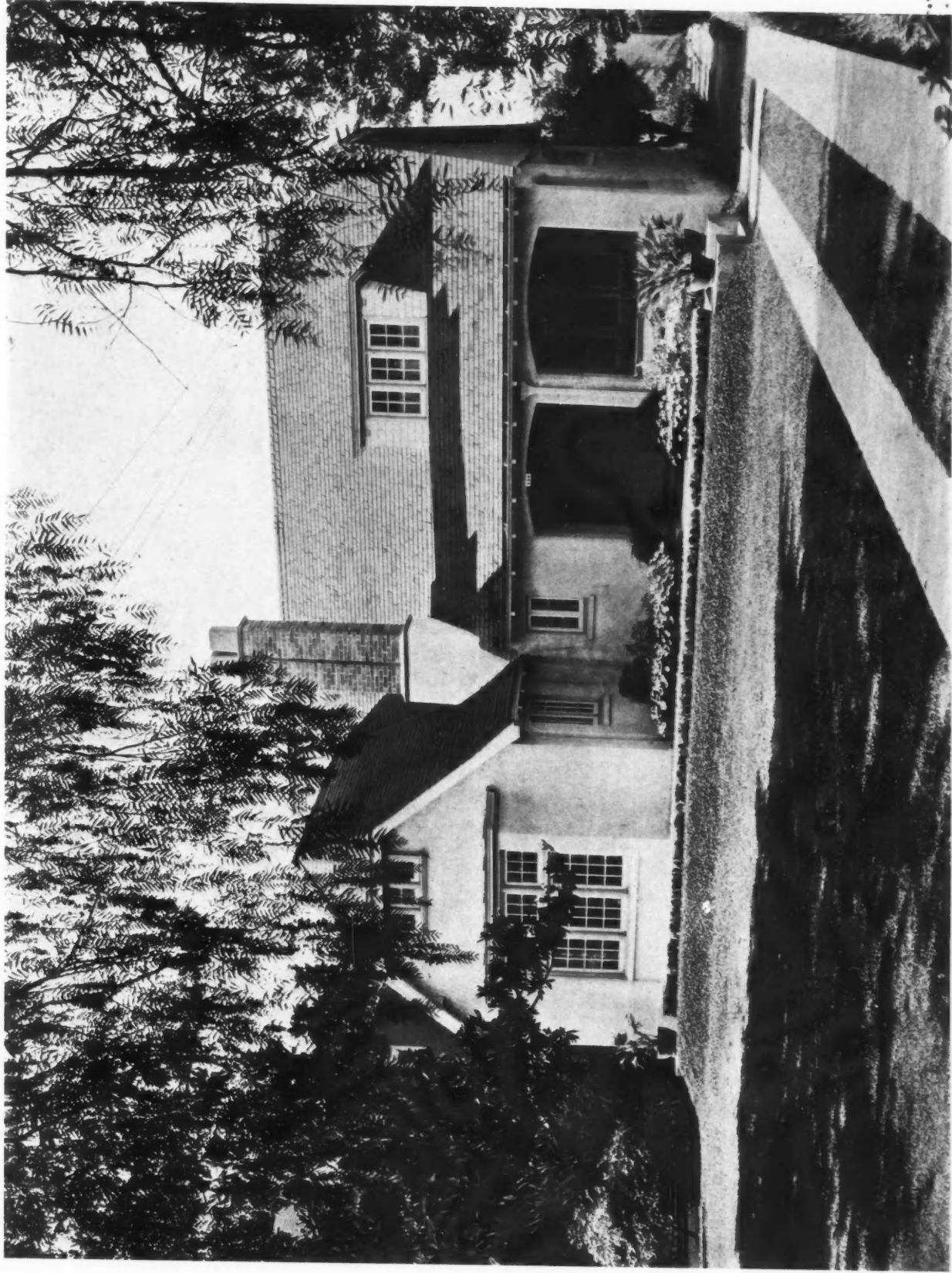
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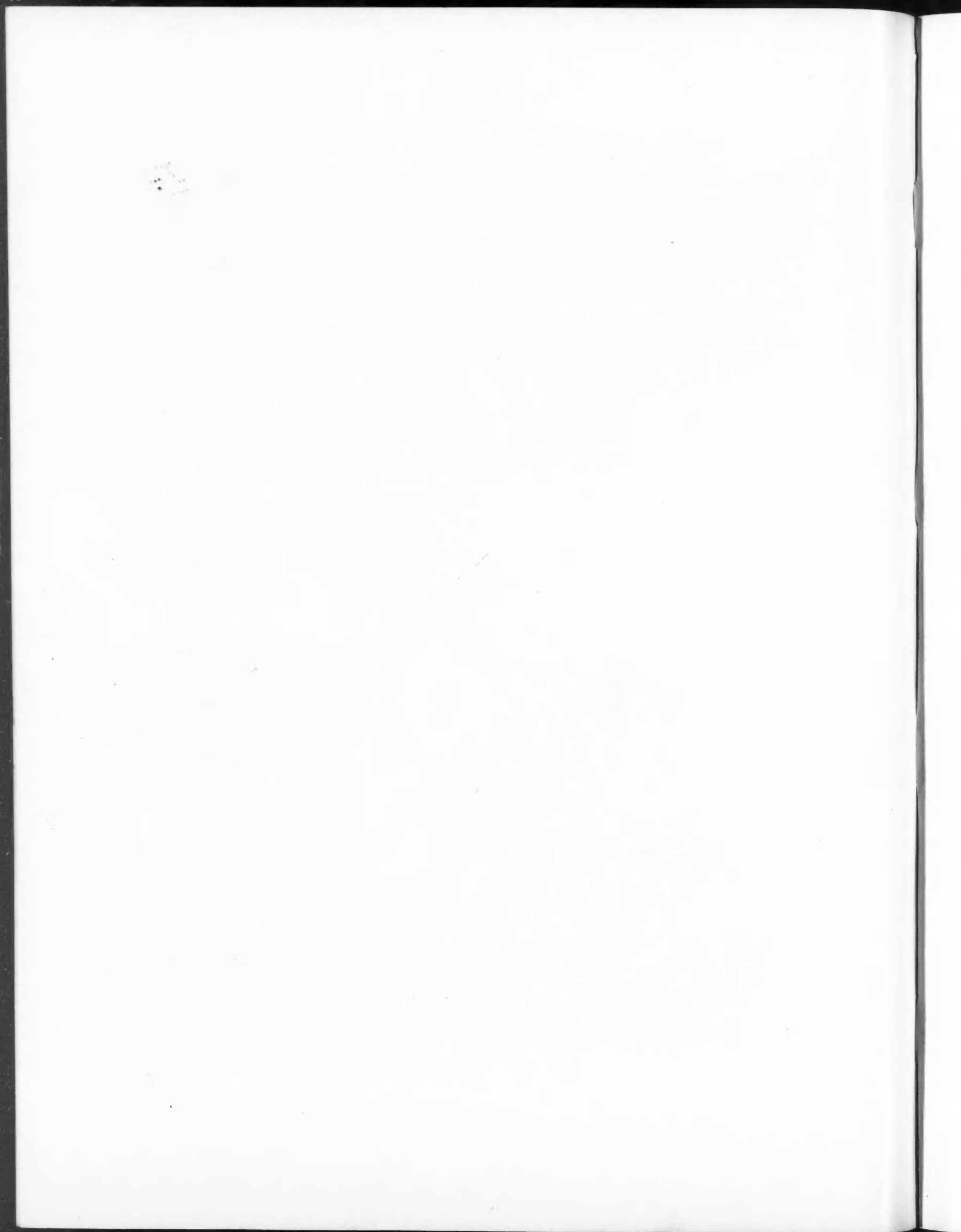


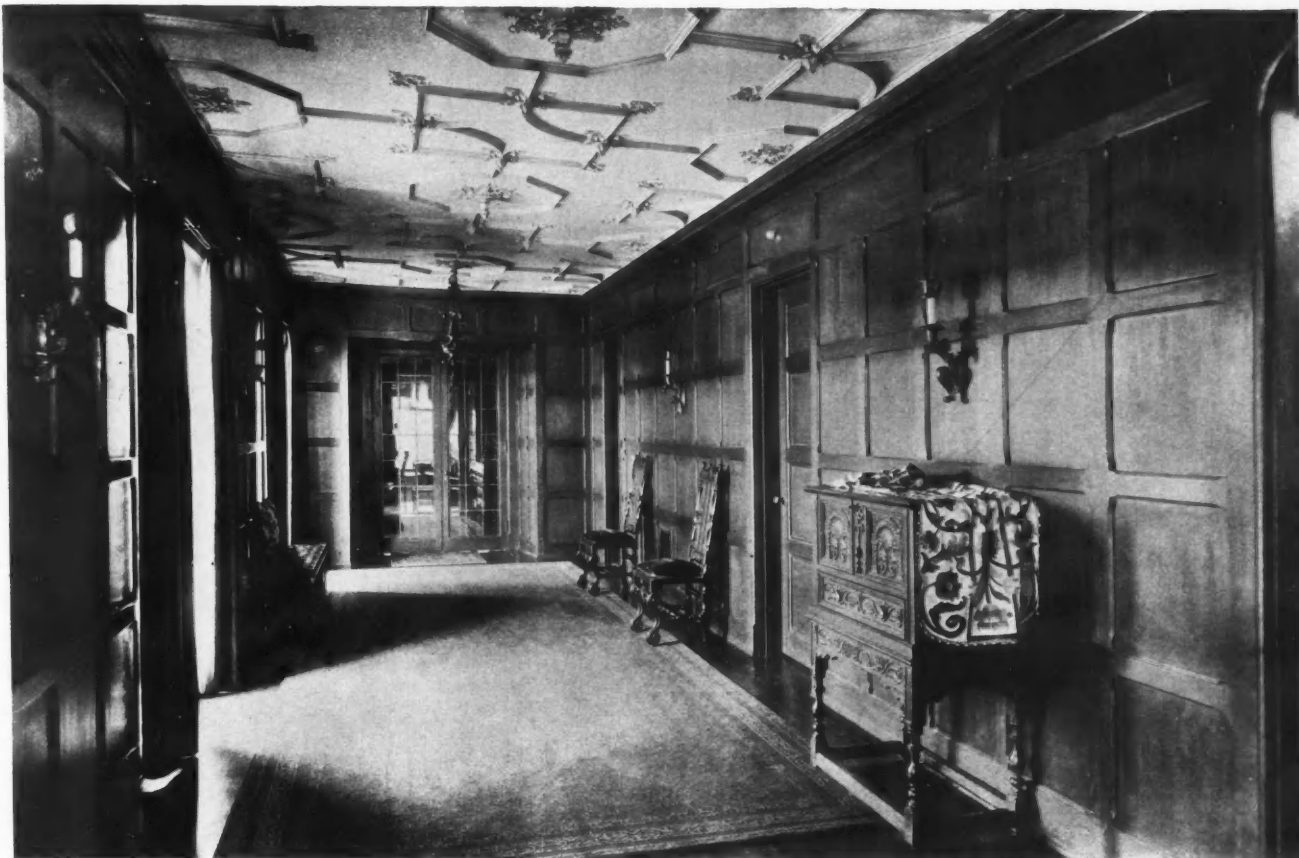
PROPERTY PLAN
HOUSE FOR ELMER GREY, PASADENA
ELMER GREY, Architect





HOUSE FOR F. H. WHITE, JR., PASADENA
MARSTON & VAN PELT, Architects





HALL



STAIR HALL

HOUSE FOR S. S. HINDS, PASADENA
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FIRST FLOOR PLAN

HOUSE FOR F. H. WHITE, JR., PASADENA
MARSTON & VAN PELT, Architects

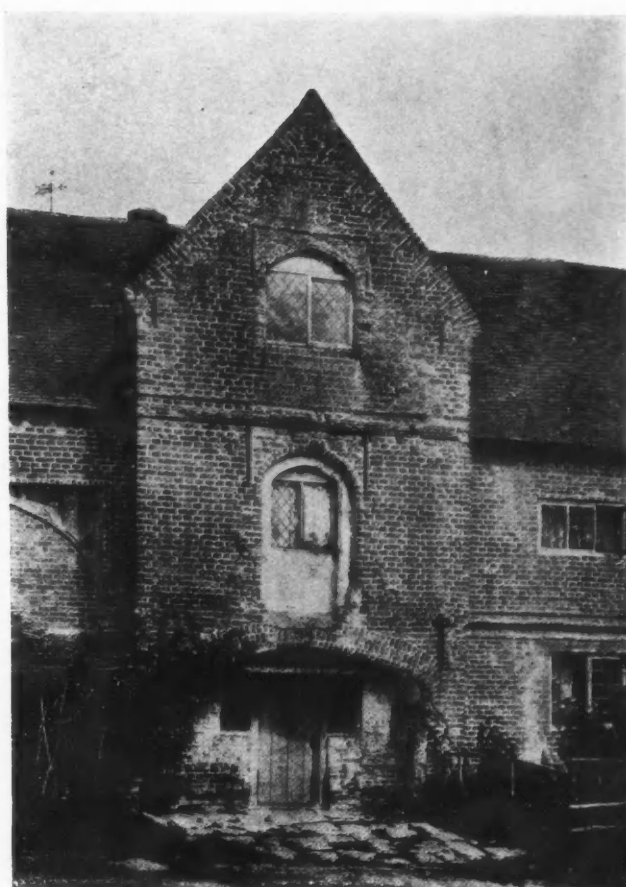


HALL

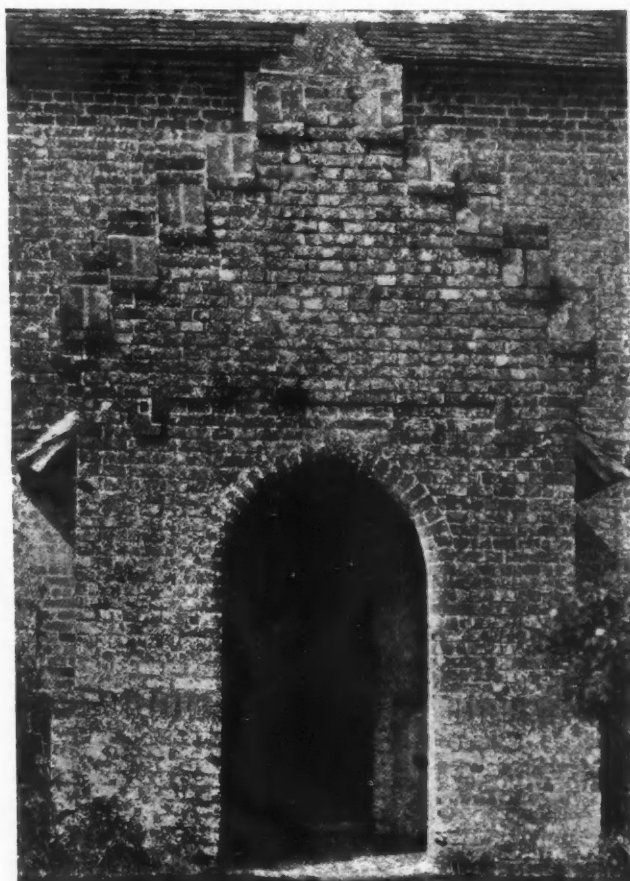
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Gable on East Front of Buildings at Sissinghurst Castle



Gable on West Front of Buildings at Sissinghurst Castle



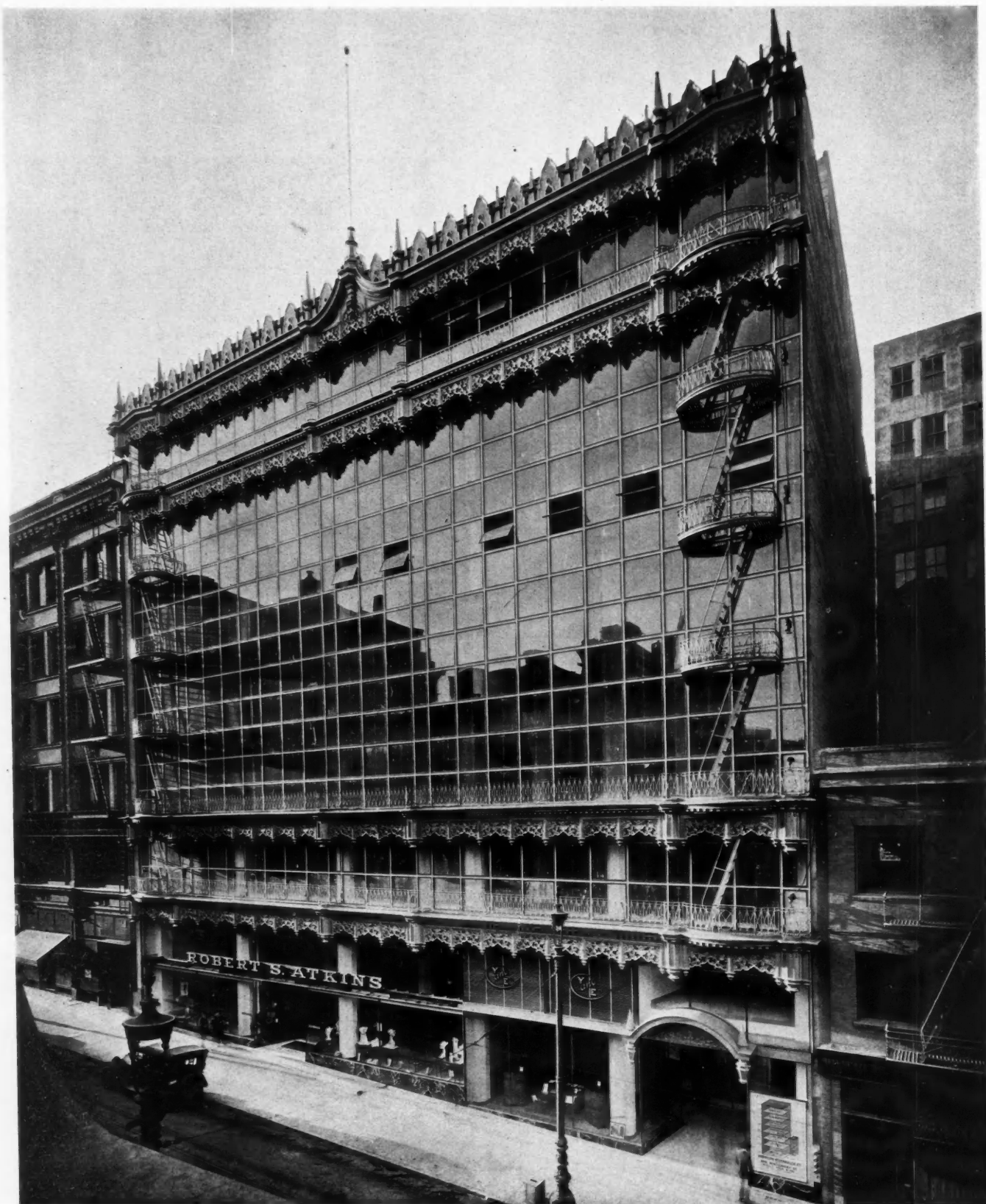
Crow-stepped Porch, Brunger's Farm, Tenterden



North-west Window of Smallhythe Church

EXAMPLES OF KENTISH BRICKWORK

Reproduced from "The Architectural Review", London



HALLIDIE BUILDING, SAN FRANCISCO
WILLIS POLK & CO., Architects

THE ARCHITECT

VOL. XVI

SAN FRANCISCO, JULY, 1918

NO. 1

Editorial.

A communication from the College of Architecture of the University of Michigan, which appears on another page of this issue, has caused us to stop and think twice. What, we seem to hear in query from those maliciously inclined, can have proved adequate provocation for an indulgence so unwonted?

The first note announces draughting courses for training women to replace the large number of men called from this pursuit, and is accompanied by the expression of a "hope that the architectural press will do all in its power to interest students in the architectural schools. Unless this is done, there is going to be a serious shortage of trained architects after the war, and the shortage will be greater in proportion to its duration. This would, of course, be a real menace to the architectural development of our country."

With this we are in hearty accord. It has been found that the old maxim, "in times of peace prepare for war," is fallacious—unless one really wants the war. But from the contrary contention, in times of war prepare for peace, there can be no intelligent dissent—save, again, from those who really prefer the war;—and the necessity for such preparation, and its intensity, become the more exigent in proportion as the war is protracted and subversive of established preconceptions. The premium on effort directed toward the prosecution of the war should not be allowed to divert attention from the importance of effort directed toward anticipating the problems of reconstruction. Peace, however near or remote, must inevitably reappear; and however permanent or precarious the basis upon which it shall be re-established, it is bound to occupy longer periods of man's time than the most protracted of wars. All possible support should be given to those activities which aim at the elimination of waste, error and retrogression, in the readjustment to normal conditions, and especially to those activities which foster the amenities and culture formerly supposed to be characteristic of civilized life as distinguished from barbaric existence.

It is the second note which has made us pause to consider. It announces that, due to conditions created by the war, requirements in scientific construction have been increased "beyond the heretofore normal requirements in architectural schools;" also that elective courses are available in preparation for specific technical service.

Just why the conditions created by the war should make it desirable for an architect to devote a greater proportion of his training to scientific construction is not clear, nor is any further explanation vouchsafed. We have, of course, no fear that the average architect will become structurally over-proficient. Yet increased attention to this phase of his work can only be at the expense of de-

creased attention to design and general culture. The greatest deficiency in the training of the architect today is on the side of real liberal education, of breadth of vision and appreciation. In the absence of information as to the reasons of the University of Michigan for increasing the emphasis on the technical side, we can only assume that the motive is a desire to be "abreast of the times" and to become "efficient." To avoid misunderstanding, we hasten to explain that, as commonly understood, being "abreast of the times" means helping to push the crowd wherever it thinks it wishes to go, and "efficiency" is the ability to push with force, certainty, and expedition. But, we are tempted to cry a little petulantly, in the fashion of the distracted refrain of the aged Geronte, what the devil is the university doing in that galley, anyway? It is the business of the university to be ahead of the times, as well as behind them and all around them; to strive to lead the community in the light of the reason and of the ideals of those of its members who are at once the best trained and the most enlightened. With the ordinary mechanical efficiency it has no concern, because its aims are ulterior to the achievement of results which are immediate and measurable. If the university relax into a technical school, where shall our ideals be nourished?

We had thought that if any lesson in regard to architectural or any other education was patent to the reflective observer in the conditions created by the war, it was the fallacy of an over-insistence on the technical, and the necessity for a liberal infusion of ideals. However great may be the need of intensive technical training in the immediate problems of the war, the reconstruction will require vision and a generous recognition of the claims of the spirit. One of the most far-reaching of the profounder psychological causes of the war is the wholehearted adoption by Germany of a crassly materialistic philosophy, which has over-fed her body and impoverished her spirit. She has sold man's birthright of a soul for a mess of the pottage of efficiency. Matthew Arnold has written, "I hate all over-preponderance of single elements." Contemporary Germany is looked upon as a thing monstrous and abhorrent because she exhibits an over-preponderance of material efficiency going hand in hand with an atrophied moral conscience. Yet there are those who, fascinated by her near-success, and gifted with more enthusiasm than vision, cry out in one and the same breath that this must not be endured in an adversary, and that the plain lesson to this country is to go and do likewise. The nation has entered upon war as a protest against an over-preponderance of materialism. Would it not be a stroke of cruel and bitter irony if the accomplishment of its purpose were at the expense of embracing the very menace it has set out to abolish?

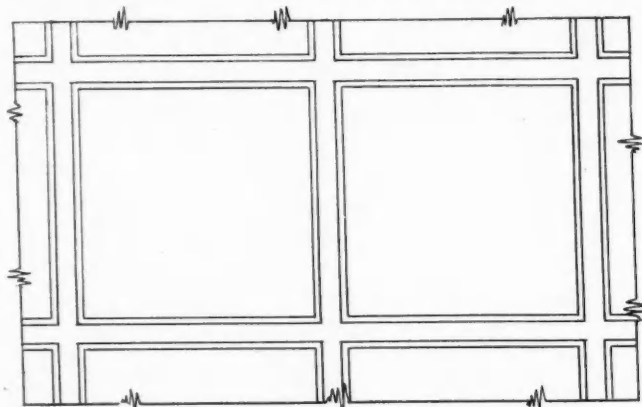
IRVING F. MORROW.

The Hallidie Building

WILLIS POLK & CO., Architects

By IRVING F. MORROW

ALTHOUGH the general public habitually accepts its architecture with the same passive resignation with which it accepts its weather or its comic supplements, yet, as a storm unusually severe or a comic feature which really happens to be funny will sometimes raise weather or comic supplements into subjects of public discussion, so now and then a building arises in our midst which is sufficiently unusual to set the man in the street to talking about architecture. The most recent example, as well as one of the best, of this architecture calculated to arouse active public interest is the Hallidie



Elevation

Building, lately completed by Willis Polk & Co. for the Regents of the University of California, as a commercial investment.

The following notes, quoted from a statement furnished by the architects, will prove of interest to readers.

"With regard to the building, it might be of interest to record in your journal the following facts:

"First: Distinction might be claimed for it as a successful commercial enterprise. Its final cost exceeded by only one-tenth of one per cent the original appropriation. The net extra cost, exclusive of tenants' requirements (for which the tenants pay interest) was less than \$250.00

"Second: From the beginning of construction to occupancy less than six months transpired. This fact, while not remarkable in normal times, is creditable under conditions that exist at the present time. There were to be met certain theoretical conditions comprising the high cost of material and the scarcity of labor that is now popularly supposed to exist—these obstacles fortunately did not prove to be insuperable.

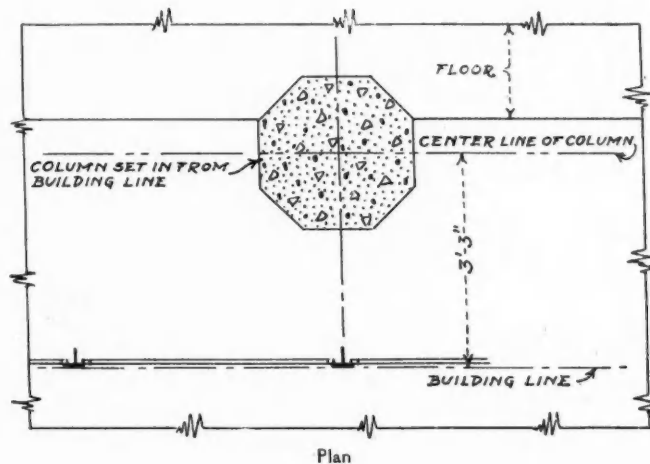
"Third: This building has variously been dubbed "The Daylight Building," "The Frontless Building," "The Camouflage Building," "The Chinese Josh House," etc., etc. As a matter of fact with the exception of the treatment of its street front it is not an extraordinary building. It is well constructed, in fact, if anything it is over-constructed. In an ordinary commercial enterprise it would be more than likely that it could have been more economically built, but in deference to the advisors of the University and in compliance with the demands of the Board of Public Works, elements were accepted that have produced more than requisite strength in construction.

Therefore, we will take it for granted that it is one of the safest and strongest buildings ever built, yet, because its front is practically 100% glass, it has the semblance in the public eye of being a dangerous and a fragile structure. The popular query is, "what will happen in an earthquake? What will become of the mass of glass?" No pane of glass in this front is more than half the average size of most of the glass in most of the buildings in all the world. Many other queries have arisen but, like the query as to whether an iron ship would float or sink, or as to whether or not a concrete ship of stone was not a pure fallacy, these queries may safely be charged to the proverbial incredulity of mankind which will not willingly accept innovations. This building is probably the first entire glass fronted building ever constructed. Vienna, Paris, London, Chicago, New York and Quebec, Canada, have, ever since the perfection of structural steel skeleton and reinforced concrete forms of construction, essayed to give agreeable expression to this new type of architectural design.

"Conservative judgement has, in caution, camouflaged its desire by clothing such steel skeletons or concrete frames in a semblance of masonry—either stone, brick or terra cotta—but with creditable patience has awaited for a successful experiment along the lines of true simplicity—lines upon which all enduring forms of art must ever be founded. It should not be claimed for the Hallidie Building that this experiment, however bold, is in any sense successful but it is certainly an innovation and its chief distinction, if it has any distinction at all, probably rests upon the fact that it is the first building ever constructed with an entire glass front.

"Incidentally modern building conditions demand fire-escapes; in most buildings up to date fire escapes have been grudgingly accepted by their designers and have seldom, if ever, been successfully treated. In most instances, while they are frankly utilitarian, they are nothing less than a disfigurement—in this building they have been accepted as a part of the problem and have been treated as a part of the artistic composition of the design.

"Finally, the color treatment of this building has been the occasion of wide-spread discussion and no apologies



Plan

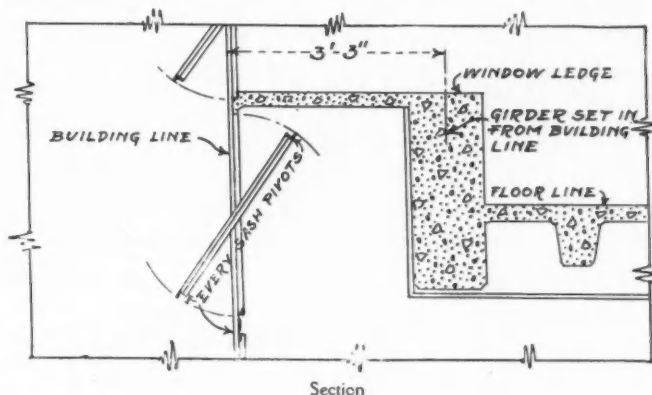
for it are offered. It being a building belonging to the University of California, a blue and gold scheme naturally suggested itself. It also being solely constructed as a commercial investment building, a successful handling of a blue and gold scheme was not within the confines of a limited commercial appropriation. Give a good workman dull tools, he cannot do good work—give a poor workman sharp tools, he cannot do good work; but, give a good workman sharp tools, he must do good work or lose his job."

Without wishing to detract from the novelty of the Hallidie Building as an innovation in Western, or even in American practice, we are inclined to question the accuracy of the statement that it is the first building to be constructed with a front entirely of glass. We have not attempted to look up statistics nor even to determine if such are available; but we seem to remember at least one large department store in Paris, the Bazar de la Rue de Rennes, which consists uniquely of steel columns and floor spandrils, all reduced to a structural minimum and not even fireproofed, with intervening spaces occupied entirely by glass. We will, however, give to the architects of the present building credit for one innovation. In all attempts at partial or complete glass design which have come to our knowledge, the glass fills the space between essential structural members. It has remained for them to erect their structure behind the building line, and hang the entire glass facade as a decorative screen in front of the structure. The result is the reduction of the visible metal members to no more than a cross ruling of lines, save where metallic ornament is designedly added. The difference in principle (the nearest analogy we recall is Louis H. Sullivan's treatment of the ground floor of the Prudential Building in Buffalo) is significant.

The value of the building as architecture, however, is in no way dependent upon who thought of it first, or what number it occupies in the chronological series of buildings designed upon a similar principle. In general we should say that the conception is valid and the result highly interesting, even if the treatment at points may be open to criticism. The scale of the metal work errs on the side of coarseness. This is particularly true of the crowning cheneau, which is excessively unmetallic in character; it is also true, though to a smaller degree, of the lower horizontal decorative bands, where a tendency to lumpiness is emphasized by comparison with the real delicacy of the surmounting iron rails. For the well considered and by no means unattractive handling of fire escapes we should be thankful. This is really one

of the most original and most pregnant innovations in the building. The design of the entrance, on the other hand, is a meagre and unrelated intrusion, entirely inadequate; it seems the more inexplicable in view of the ingenuity and evident verve which went into other parts of the design.

For the color the architects tell us that no apology is forthcoming, and, as a matter of fact, we do not see why one should be necessary. The concluding remarks above quoted evidently allude to the fact that they of necessity



used a tarnishable gold paint, and imply a challenge to supply them with proper materials and see what they can accomplish. For a demonstration of the immeasurable superiority of gold leaf one need go no further than the dome of the City Hall. But while we regret the greenish, muddy tarnish which the paint only too rapidly acquires, we are unable to agree with the numerous critics who condemn the color scheme of the building as lacking in propriety or attractiveness. The life and variety thus introduced into the dullness of the city street is an asset of no mean value. Barring the unfortunate tarnish on the gold, which accentuates the above-mentioned lumpiness of the detail to which it is applied, the scheme is one of considerable restraint and delicacy, despite the brilliance and unusualness of the component colors. In certain lights the echo of the lively blue of the metal lines by the broad areas of paler blue reflected from the sky in the innumerable glass panes is an effect of great subtlety and beauty. Seen at a sharp angle this same multitude of reflections lends vivacity to the ordinary monotony of street perspective.

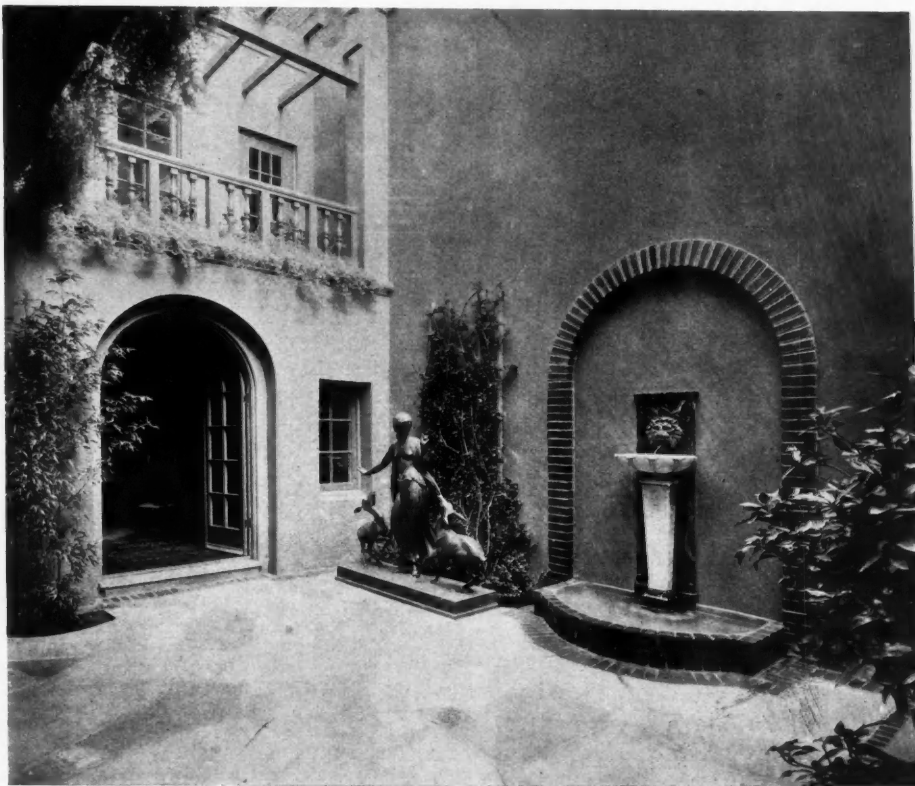
Our most serious question would be, How can the occupants endure the quantity of light which must inundate the interior?

On Mural Decoration and the Easel Picture

By RAY BOYNTON

TO any one studying critically any current exhibition of paintings there must be evident an element of confusion. In a large amount of the work no evidence of a definite direction presents itself, and even though there is no lack of seriousness, one wonders often if the artist is guided by a severe and exacting discipline of self-criticism based on a definite point of view toward his work as a craft or merely by the dictates of style.

The lack of discipline in modern art is a thing that, I think, cannot well be overlooked and I wonder if it is not even regarded as a virtue. By discipline, I mean a genuine standard of critical judgment, a point of view that can apply without vagueness to any work of art of any period, Oriental or Occidental, from a porcelain to a fresco, from a rug to a fan. And being pretty consistently without any such discipline, for critical standards we take refuge in schools and pride



Italian Courtyard in the Hill Tolerton Print Rooms, before the fountain received its decoration
WM. C. HAYS, Architect



Fresco by Ray Boynton on the Estate of E. H. Furman, Los Altos, California
This fountain was designed throughout and constructed by the artist in cement, glazed tile, and fresco. The motif was furnished by the Chinese bronze basin. The surroundings allowed a great amount of freedom in every way. The fresco process given by Cennino Cennini was followed by the artist.

ourselves on modernism, and damn or praise by the latest period or the one just preceding it. That, I consider, is largely because of the fact that the easel picture has assumed a place out of all proportion to its importance and tried to hoodwink us into believing it the heir of all the ages.

The easel picture, because it is a sort of independent creative effort, without tie or responsibility to architecture or anything structural or permanent outside itself, is a kind of law unto itself. It has given us the exhibition canvas; that work which has so little contact with any other human activity, but which clamors so successfully to be seen that it has almost no place to hang except in the exhibition gallery. So dominating has this idea become that any exercise of artistic restraint in painting is likely to be looked upon as a sign of weakness.

I once heard a man who was a connoisseur and a lover of fine rugs and an authority upon them, say that a rug should have a firm and well-

thought-out design that was consistent and harmonious both in form and color—after that it was a question of material and workmanship; but if it did not have those qualities it was not a work of art, anyhow. This might very well have been said about painting or book illumination or porcelain. Ernest Fenollosa, in the introduction to his "Epochs of Chinese and Japanese Art," makes a similar statement, more general and more compact, when he says, "All art is harmonious spacing under special technical conditions that vary." This seems to me a

pronouncement on craftsmanship in art wide enough in its scope and exact enough to apply minutely to any visual art of which I can conceive. It has the virtue that it lays no constraint on the individual conception of the artist, but only presumes to judge how well he has mastered his materials and evolved his conception. It clearly marks design the touchstone of all great art—design, in its abstract beauty, when mastered, the most perfect vehicle of the imagination, and infinite in its possible variety. I maintain that any man or any period or any kind of work that has accomplished this nobly is still a living influence in Art and to be inspired by such achievement is no reproach to any living artist. Yet the preoccupation of artists with the easel picture before them has obscured their vision in this field to the point where style appears to be a thing sought for before great design, and the influence of anything but the lat-

est school is questioned, and the matter of painting in a high or a low key is discussed as if it were important in itself. This is inevitable, I think, in a field where there is no restraining influence and no exacting discipline, such as, for instance, architecture imposes upon mural decoration. And, I believe design exercises its greatest ingenuity and achieves its greatest triumphs when it is frankly decorative, when it consciously coordinates with some other effort, gathering up an accumulating force from its surroundings, and remains self-contained. It is a field of effort where the necessity of taste cannot well be denied and the lack of it cannot well be hid, for the architecture of a room may not be altered very easily and the work is expected to remain in one place. I believe a good test

of the work of any artist is his ability to coordinate his work with its surroundings.

I do not mean even to suggest that artists should abandon easel painting—far from it. It is a field that has produced great art and will continue to produce it. It aspires to a unique place of independence akin to poetry and music, and that is a high ambition. But the easel picture is only a little brother to mural decoration, and the vital design of painting has come to it from that source; and easel painting would profit immensely by the

contact if it went back often to this source for new strength. If artists would discipline their minds to think in terms of mural decoration, they would find that good decoration is not conceived in the terms that pass current in a large percentage of the pictures that hang in the exhibitions. To appreciate the difference fully, one should try painting directly on a wall in a rather exacting architectural setting. The result would be illuminating to the artist.

Not everybody will paint mural decorations, but I think that all artists have an ambition to do so; and if they would discipline themselves with that kind of thinking, it would react well upon their work. I believe they would find their critical standards simpler and more exacting and painting would free itself from a great deal that is non-essential, and the evidence of a general direction in their work would be more apparent. It might be a

prospect that architects would welcome.

Editorial Note.—"Mural painting" is an expression which is apt to connote monumental subjects spread over vast wall surfaces or vaults too lofty to be comfortably viewed. The two examples of Mr. Boynton's work presented herewith serve as a reminder that it is not incompatible with restricted dimensions, modest scale, and intimate feeling. In each case the size is considerably under that of many an exhibition picture, but the conception is purely decorative. The frequent employment of decorations which are personal in location, scale, and treatment may prove of more value to the cause of art than the use of paintings in the "grand style" in public buildings, of necessity at once rarer and more removed.



Mural Painting by Ray Boynton

This decoration was applied to a fountain already constructed in the Italian courtyard of the Hill Tolerton Print Rooms. The surrounding architecture was an important consideration

Current Notes and Comments

THE BUILDING MATERIAL EXHIBIT

A long felt want in the building line is a concentrated exhibit of the innumerable methods and materials which now are incorporated in the modern building, to give to the owner, architect and builder an opportunity properly to decide as to the adaptability of a particular material for his purpose. Such an exhibit to be valuable to all, should be complete, up to date, and reliable data available at a moment's notice, involving an amount of work which will take some time to perfect and systematize in proper working order.

The architect, who now receives so much mail costly to the advertiser, and oftentimes, without even cursory examination, relegates the same to the waste basket; or worse than that sinks it into the impenetrable mass of other advertising, impossible of resurrection at the time when most needed, will appreciate the innovation.

To have a library of catalogues, and the material samples close at hand, where form, substance and color can be considered at leisure, and where a client may comfortably peruse the suggestions for his building without being dragged all over town, and where different suggestions may be assembled and shown, is most valuable to a busy man, be he owner, architect or builder.

This movement is especially creditable at the present time during the lull before the storm of activity, which is bound to come when conditions show signs of having capital go back into normal channels.

By this concentration of effort the advertiser may be saved an untold amount of costly, useless matter, the architect may be saved the space, time and expense of filing and indexing, the builder may not have the excuse of "Don't know it and can't get it," and the owner can more readily see what he is getting before he gets it.

For the above reasons the San Francisco Chapter of the American Institute of Architects has cheerfully endorsed The Building Material Exhibit as a more efficient method of handling samples, this bugbear of an architect's office, and have asked its members to co-operate toward making the exhibit complete and of the most benefit to the building material industries and those they wish to serve.

J. W. DOLLIVER.

IN REGARD TO MORTAR

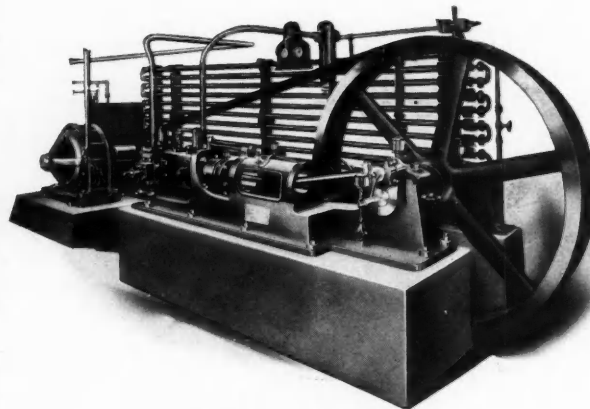
A brochure of very attractive appearance, entitled "Non-Staining Mortar for Pointing, Setting, and Backing," appears over the name of the Atlas Portland Cement Company. Though issued ostensibly for advertising purposes, it contains valuable general information in concise form. In addition to a long catalogue of buildings in which Atlas-White Portland Cement has been used, and statistics relative to its physical and chemical properties, the contents include a short discussion of the essential requirements of mortar, detailed specifications for backing, setting, and pointing stone, marble, brick, and tile, and explanations of the reasons for the practices advocated. The booklet is excellently illustrated with photographs of a surprising number of important structures in which Atlas-White Portland Cement has been used,—

in fact, it almost constitutes a select portfolio of recent work of the foremost architects of the country. In this respect it is in striking contrast with many current examples of building-material advertising, which frequently presume to enforce the distinction of the product by exhibiting the architectural mediocrity of the buildings in which it has been used. Copies of this brochure may be obtained upon request from the Atlas Portland Cement Company, 30 Broad St., New York City.

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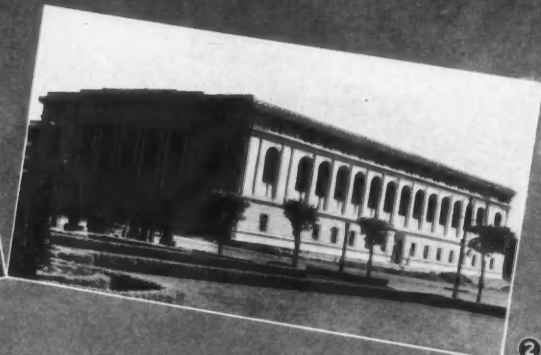
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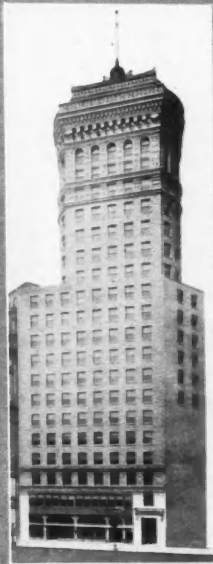
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| JOHN REID, Jr., Architect | |
| 2. Municipal Library | San Francisco |
| GEO. W. KELHAM, Architect | |
| 3. Hobart Building | San Francisco |
| WILLIS POLK & CO., Architects | |
| 4. Santa Fe Building | San Francisco |
| WOOD & SIMPSON, Architects | |
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Official News of Pacific Coast Chapters, A. I. A.

The Architect is the Official Organ of the San Francisco Chapter, Southern California Chapter and Washington State Chapter, A. I. A.

The regular minutes of meetings of all Pacific Coast Chapters of the American Institute of Architects are published on this page each month.

San Francisco Chapter, 1881—President, John Bakewell, Jr., 251 Kearny Street, San Francisco, Cal. Secretary, Morris M. Bruce, Flood Building, San Francisco, Cal. Chairman of Committee on Public Information, William B. Faville, Balboa Building, San Francisco. Chairman of Committee on Competition, William Mooser, Nevada Bank Building, San Francisco. Date of Meetings, third Thursday of every month; Annual, October.

Southern California Chapter, 1894—President, J. J. Backus, Room 35, City Hall, Los Angeles, Cal. Secretary, H. F. Withey, 1017 Van Nuys Building, Los Angeles, Cal. Chairman of Committee on Information, W. C. Pennell, Wright & Callender Building, Los Angeles. Date of Meetings, second Tuesday, except July and August, at Los Angeles.

Oregon Chapter, 1911—President, Joseph Jacobberger, Board of Trade Building, Portland, Ore. Secretary, Alfred H. Smith, Board of Trade Building, Portland, Ore. Chairman of Committee on Public Information, Joseph Jacobberger. Date of Meetings, third Thursday of every month at Portland; Annual, October.



Washington State Chapter, 1894—President, Daniel R. Huntington, Seattle, First Vice-President, A. H. Albertson, Seattle, Second Vice-President, George Gove, Pullman. Third vice-President, Albert Held, Spokane. Secretary, Gerald C. Field, Seattle. Treasurer, Frank L. Baker, Seattle. Counsels: Charles H. Bebb, James H. Schack, James Stephen. Date of Meetings, first Wednesday, except July, August and September, at Seattle, except one in spring at Tacoma. Annual, November.

The American Institute of Architects—The Octagon, Washington, D. C. Officers for 1918: President, Thomas R. Kimball, Omaha, Neb.; First Vice-President, Charles A. Favrot, New Orleans, La.; Second Vice-President, George S. Mills, Toledo, Ohio; Secretary, William Stanley Baker, Boston, Mass.; Treasurer, D. Everett Waid, New York, N. Y.

Directors for Three Years—Edward W. Donn, Jr., Washington, D. C.; Robert D. Kohn, New York, N. Y.; Richard Schmidt, Chicago, Ill. **Directors for Two Years**—William B. Faville, San Francisco, Cal.; Burt L. Fenner, New York, N. Y.; Ellis F. Lawrence, Portland, Ore. **Directors for One Year**—Edwin H. Brown, Minneapolis, Minn.; Ben L. Lubschez, Kansas City, Mo.; Horace Wells Sellers, Philadelphia, Pa.

Minutes of San Francisco Chapter

JUNE 20, 1918

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held on Thursday evening, June 20, 1918, at Bonini's Barn, 609 Washington Street. The meeting was called to order at 8 p.m. by Mr. Bakewell, the President.

The following members were present: John Bakewell, Jr., Morris M. Bruce, J. Harry Blohme, Ernest A. Coxhead, J. W. Dolliver, Arthur T. Ehrenpfort, August G. Headman, John Galen Howard, James A. Magee, Edgar A. Mathews, Fred H. Meyer, C. A. Meussdorfer, William Mooser, E. J. Molera, Sylvain Schnaittacher, Charles P. Weeks, Smith O'Brien.

Professor Herbert Ellsworth Cory and M. A. Williams were present as guests of the Chapter.

MINUTES

The minutes of the meeting held on May 16th, 1918, were read and approved.

COMMUNICATIONS

From B. S. Hirschfeld relative to his resignation from the Chapter; from William Stanley Parker, Secretary of the Institute regarding revised Chapter Constitution and By-Laws; from the Architectural Forum asking for names of architects who are doing work for the Government.

STANDING COMMITTEES

S. F. Sub-Committee on Competitions: No report.

Institute Relations: Mr. John Galen Howard, Chairman of this Committee, suggested that his report be received and read at the next meeting.

Committee on Municipal Matters: No report.

Committee on Education: No report.

Committee on Legislation: No report.

Committee on Relations with Coast Chapters: No report.

Board of Directors: A meeting of the Board of Directors was held on Friday, June 14, 1918, to discuss matters relative to the Building Materials Exhibit. The following resolution and letter to the manager of the Building Materials Exhibit was adopted; also the report of the first committee appointed.

"At a meeting of the San Francisco Chapter of The American Institute of Architects held April 18th, 1918, a report was submitted by the committee on Building Materials Exhibit to the effect that the committee believed that The Building Material Exhibit, by reason of the length of time it has been in operation and because of its having demonstrated its usefulness to the Architect, should receive the endorsement of the Chapter and the support of the Profession. The Building Material Exhibit should relieve the office of the Architect of the accumulation of obsolete samples and useless data and it should furnish a reliable central point for reference to such samples and data, upon motion duly made and seconded it was

RESOLVED, that the report of the committee be accepted and that this Chapter endorse the aims and purposes of THE BUILDING MATERIAL EXHIBIT

and that the Chair be requested to appoint a permanent standing committee to act with THE BUILDING MATERIAL EXHIBIT, and to assist it and cooperate with it in order to increase its success and usefulness to the profession.

(Signed) JOHN BAKEWELL, JR., President.
(Signed) MORRIS M. BRUCE, Secretary.

PERMANENT COMMITTEE:

MORRIS M. BRUCE, Chairman,
J. W. DOLLIVER,
ERNEST A. COXHEAD.

NEW BUSINESS

Memorial to Mr. A. Page Brown

Mr. Mooser spoke in favor of placing the name of Mr. Brown on "The Portals of the Past" in the Park, Mr. Brown having deigned the A. N. Towne residence of which the relic was a part.

Mr. Mathews who assisted Senator Phelan in having the work placed in the Park, explained the difficulties attending such a project, and on motion of Mr. Coxhead, duly seconded and carried, the Chair appointed Messrs. Schnaittacher, Hobart, Maybeck and J. R. Miller a committee to consider some form of Memorial to Mr. Brown.

After the adjournment of the business meeting the members listened with much interest to Professor Herbert Ellsworth Cory's talk on "The Future of the Labor Movement in America; American Traits and European Influences." The Socialists of Germany, Sweden and Russia were thoroughly described. The various ramifications of Socialism in Russia were cleared up as far as it is possible to clear a subject that appears to be in a state of flux. He also carried us through the labor movement in Italy and France and England, especially the British Labor Party which has invited all classes of workers, both those who labor with head and with brain to cooperate in the interests of better conditions for those who work. He described the labor groups in the United States; the Railroad Brotherhoods who are the conservatives, the American Federation of Labor who are a very loose organization, and the extreme Radicals, the I. W. W. who advocate attaining their ends by what they call "direct action" and whose activities the Government is now seeking by drastic means to curtail.

Following the formal address Professor Cory invited questions and discussion which brought out many additional points of interest. The members therefore expressed their thanks and appreciation of Professor Cory's address by a vote of thanks.

MEMBERSHIP

It is with regret that we record the loss of Mr. William Garden Mitchell who passed away at San Anselmo on May 21, 1918. The Chair appointed a committee consisting of Messrs. Schnaittacher and Dolliver to draft resolutions in memory of Mr. William Garden Mitchell.

ADJOURNMENT

There being no further business before the meeting, the Chapter adjourned at 8:55 p.m.

Subject to approval....., 1918.

MORRIS M. BRUCE, Secretary.



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Minutes of Southern California Chapter

The one hundred and eighteenth regular meeting of the Southern California Chapter, A. I. A., was held at Jahnke's Tavern, Tuesday, June the eleventh, 1918.

The meeting was called to order by the President, Mr. J. J. Backus, at 7:45 p.m., the following members being present: J. J. Backus, C. H. Brown, G. E. Bergstrom, P. A. Eisen, Theodore Eisen, R. C. Farrell, J. C. Hillman, A. C. Martin, Octavius Morgan, O. W. Morgan, S. T. Norton, H. F. Withey, Wm. H. Willson.

As guests of the Chapter were present: Mr. Mark Cohn, Chairman of the State Bureau of Housing and Immigration; Mr. J. E. Kienle, Secretary of the Los Angeles Housing Commission, and Mr. John Bowler, of the Southwest Builder and Contractor.

Minutes of the 117th meeting were read and approved.

The Secretary reported receiving a check of \$215.20 from Mr. D. E. Waid, Treasurer of the Institute, the same being a refund on the delegate's expenses to the Convention at Philadelphia.

Under "Committee Reports," the Secretary read a communication from Mr. Elmer Grey, outlining briefly a plan of holding an architectural exhibition in connection with the California Liberty Fair, from the first to the fifteenth of September, supplemented with the request that the President appoint a new member to the Educational Committee to take the place of Mr. D. C. Allison, who is leaving for Government service in France, also asking for the appointment of a Jury of Award for said Exhibition.

Under "Communications" the following were read:

From Mr. William Stanley Parker, Secretary of the Institute, announcing the election of Mr. William L. Woollett to membership in the Institute, and his assignment to the Southern California Chapter.

From Mr. George A. Damon, Secretary of the Technical Societies, announcing a meeting of the Joint Committee of the Technical Societies for Wednesday, June 12th, with the request that the President and Chapter members of the Joint Committee be present, for the consideration of a program for the summer.

From the City Council of Hemet, California, expressing their appreciation of the Chapter's assistance in preparing and drafting their new city Building Ordinances.

Under "Unfinished Business" the Secretary presented a Resolution condemning the practice of dividing commissions with realty brokers, as it may exist. It was moved by Mr. Morgan, seconded by Mr. Martin and unanimously carried that the same be adopted and a copy of the Resolution be appended to the Minutes of the meeting.

Under "Papers and Discussions," President Backus read a detailed report of his trip to the Philadelphia Convention, at the conclusion of which Mr. Morgan highly commended the report, and moved that a vote of thanks be extended to Mr. Backus. This was seconded by Mr. Hillman and unanimously carried.

Mr. Mark Cohn was then introduced and spoke at some length relative to the State Housing Laws, suggesting that if the Chapter felt that any of the provisions of the laws were not as they should be, that recommended revisions be submitted to the Housing Commission.

Minutes of Oregon Chapter

MARCH 21, 1918

Meeting held at Chamber of Commerce, Portland, Oregon.

Members present: President Jacobberger, Lawrence, Holford, Webber, Lazarus, Schacht, Naramore, Doyle, Johnson and Smith.

Motion made by Lawrence, seconded by Holford, that a committee be appointed to meet the various engineering societies at regular intervals for discussion of matters affecting both professions. Motion carried. The President then appointed Doyle, Naramore and Holford to form this committee.

Motion made by Doyle, seconded by Johnson, to invite Sutton and Whitney to become members of the Chapter. The motion was carried unanimously.

Motion by Naramore, seconded by Johnson, that President Jacobberger be designated as a delegate to the Convention to be held on April 24th—and if unable to attend, to appoint a proxy. Motion carried.

ALFRED H. SMITH, Secretary.

JUNE 20, 1918

Meeting held at Chamber of Commerce, Portland, Oregon.

Meeting called to order by President Jacobberger, with the following members present: Whitehouse, Johnson, Schacht, Williams, Naramore, Lawrence and Smith.

Letter soliciting funds for the "Professional Classes War Relief of America" was read and ordered laid on the table.

Motion made by Williams, seconded by Schacht, that the Treasurer be instructed to pay the sum of \$25 to the School of Architecture at Eugene for prizes for 1918, as recommended by the Educational Committee in letter of March 29, 1918.

Motion by Johnson, seconded by Whitehouse, that the letter from the Illinois Chapter of May 23rd, re their resolution on advertising and signing of buildings, be laid on the table until next meeting.

The letter from C. Grant LaFarge re the "Professional Classes War Relief of America" was ordered laid on the table.

Motion by Lawrence, seconded by Whitehouse, that the Chapter endorse and approve a Housing Code subject to approval by a Special Committee of the Chapter.

Motion by Naramore, seconded by Smith, that the President appoint a Special Committee with power to act on the proposed Housing Code as submitted by the Housing Association.

Motion by Lawrence, seconded by Whitehouse, that the Chapter recommend a Board of Appeal to the proposed Housing Code.

Motion by Lawrence, seconded by Johnson, that a Special Committee be appointed by the President to consider all matters pertaining to Housing and said Committee to report in two weeks a mode of procedure for the Chapter's consideration.

ALFRED H. SMITH, Secretary.

Whereas, The solution of the Housing problem, as applied to the war workers, has been recognized, by all the various nations, as a vital part of their war program; and

Whereas, The United States, appreciating the need of efficient and contented workmen to speed up production of war supplies and ships has appropriated \$110,000,000 for the purpose of building quarters for war workers; and

Whereas, Statistics prove that Portland is confronted with a serious shortage of desirable quarters for workers in the shipyards and other war activities, thereby jeopardizing the fulfillment of her duties to the Nation in this crisis; and

Whereas, The Oregon Chapter of the American Institute of Architects is, from the experiences of its members, keenly aware of the difficulties existing to solve this serious matter, in the way of increased building costs, in securing skilled labor and materials; and

Whereas, The Oregon Chapter of the American Institute of Architects is desirous of doing all in its power to aid the Government at this critical time; therefore,

Be it Resolved, That the Oregon Chapter of the American Institute of Architects hereby offers its services in an advisory capacity, without cost, during the war, to all Portland organizations, interested in the Housing problem, and be it further

Resolved, That the Housing Committee of the Oregon Chapter of the American Institute of Architects, be hereby instructed to gather and present all information at its disposal, to the public and to any Portland organization asking for professional advice on Housing matters. Should actual maps, layouts, and plans, be needed at the minimum cost for the success of any approved Housing venture, then the above committee is hereby instructed to report back to the Chapter, which will attempt to secure such maps, layouts, and plans, at net cost of production; and be it further

Resolved, That this offer holds good to all other committees in the State of Oregon and to environs of Portland.

For the Oregon Chapter of the American Institute of Architects,

By JOS. JACOBBERGER, President,
and ALFRED H. SMITH, Secretary.

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